SOVIET PHYSICS

JETP

A translation of the Zhurnal Éksperimental'noĭ i Teoreticheskoĭ Fiziki

LETTERS TO THE EDITOR

VOLUME 13

Editor - A. S. Borovik-Romanov

Associate editor - I. S. Shapiro

"Nauka" Press

1971

Bracketed page numbers refer to the Russian edition

Abakumov, G. A. (see Yanait, Yu. A.) - 13, 438 [13, 616)]
Afanas'ev, Yu. V., E. M. Belenov, O. N. Krokhin, and I. A. Poluektov. Possibility of Obtaining a Powerful Neutron Source by Action of a Laser Pulse on a Compound Target - 13, 182 [13, 257]
_, E. M. Belenov, E. P. Markin, and I. A. Poluektov. Nonequilibrium Dissociation of a Molecular Gas Under the Influence of Resonant Laser Radiation, with Allowance for Vibration-vibration Collisions - 13, 331 [13, 462]
Afrosimov, V. V., Yu. S. Gordeev, V. M. Lavrov, and G. N. Ogurtsov. Making a Medium Translucent to Radiation Excited by a Directed Stream of Atomic Particles - 14, 275 [14, 408]
Aivazyan, G. M., Yu. M. Aivazyan, V. I. Gol'danskii, R. N. Kocharyan, E. F. Makarov, and A. R. Mkrtchyan. Influence of Ultrasonic Excitations in Crystals on the Probability of the Mossbauer Effect - 13, 388 [13, 543]
Aivazyan, R. B. (see Avakyan, K. M.) - 14, 239 [14, 357]
Aivazyan, Yu. M. (see Aivazyan, G. M.) - 13, 388 [13, 543]
Akhiezer, A. I., V. F. Aleksin, and V. D. Khodusov. Concerning One More Method of Magnetic Energy Pumping into a Turbulent Plasma - 13, 114 [13, 164]
_, P. I. Fomin, and N. F. Shul'ga. Coherent Bremsstrahlung of Electrons and Positrons of Ultrahigh Energy in Crystals - 13, 506 [13, 713]
_ and M. P. Rekalo. Scattering of γ Quanta by Nucleons in the Quark Model - 14, 119 [14, 181]
Akhiezer, I. A. and L. N. Davydov. Instability of Spin Waves in Ferroelectric Antiferromagnets in External Fields - 13, 271 [13, 380]
_ and V. V. Angeleiko. Nonlinear Variation of the Phase Velocity and Stabilization of Plasma Oscillations - 14, 295 [14, 434]
_, B. I. Barts, and V. T. Lazurik-El'tsufin. Giant Resonance in the Fermi-liquid Drop Model - 14, 368 [14, 535]
Akhmanov, S. A. (see Aleshkevich, V. A.) - 13, 36 [13, 55]
_, Yu. E. D'yakov, and A. S. Chirkin. Accumulating Nonlinear Optical Effects in a Pump Field with a Broad Frequency Spectrum - 13, 514 [13, 724]
Alekhin, A. D. and N. P. Krupskii. Experimental Verification of Scale Law in the Critical Region of Cyclopentane - 14, 403 [14, 581]
Aleksandrov, A. Yu., S. P. Ionov, A. M. Pritchard, and V. I. Gol'danskii. Mossbauer Spectra and the Jahn-Teller Pseudoeffect in M_2SbCl_6 - 13, 8 [13, 13]
Alekseev, L. A., P. L. Gruzin, M. N. Uspenskii and M. R. Gryaznov. Temperature Dependence of the Probability of the Mossbauer Effect in Yttrium-iron Garnets - 14, 192 [14, 292]
Alekseev, V. A. Nature of the Electrical Conductivity of Metals in the Transcritical State - 14, 195 [14, 295]
Alekseevskii, N. E., V. I. Tsebro, and E. I. Filippovich. Superconductivity of Beryllium Films Evaporated Jointly with Zinc Etioporphyrin - 13, 174 [13, 247]
_, V. M. Zakosarenko, and V. I. Tsebro. Superconductivity of Cold-deposited Films of Alloys of Germanium with Noble Metals - 13, 292 [13, 412]
_, P. Djir, and V. I. Nizhankovskii. Concerning Magnetic Breakdown in Beryllium - 14, 169 [14, 256]
Aleksin, V. F. (see Akhiezer, A. I.) - 13, 114 [13, 164]
Aleshkevich, V. A., S. A. Akhmanov, A. P. Sukhorukov, and A. M. Khachatryan. Self-focusing and Defocusing of Short Light Pulses in Media with Inertial Nonlinearity - 13, 36 [13, 55]
Aliev, F. Yu., F. R. Godzhaev, I. G. Kerimov, and E. S. Krupnikov. Observation of the High-temperature Quantum Size Effect in Semiconducting CuS Film - 13, 480 [13, 679]
Aliev, M. R. Purely Rotational Spectra of Nonpolar Molecules in the Vibrational Ground State - 14, 417 [14, 600]
Alikhanyan, A. I., G. M. Garibyan, M. P. Lorikyan, and K. K. Shikhlyarov. Dynamic Radiation Generated in Crystals by Particles with Ultrarelativistic Energies - 13, 142 [13, 201]
Alodzhants, G. P. and V. P. Silin. Spin Waves in Nonferromagnetic Metals with Open Fermi Surfaces - 14, 236 [14, 351]
Al'tshuler, S. A., R. M. Valishev, B. I. Kochelaev, and A. Kh. Khasanov. Observation of Phonon Cascade by the Method of Mandel'shtam-Brillouin Light Scattering in Pulsed Saturation of Paramagnetic Resonance - 13, 382 [13, 535]
Altyntsev, A. T., A. G. Es'kov, O. A. Zolotovskii, V. I. Koroteev, R. Kh. Kurtmullaev, V. L. Masalov, and V. N. Semenov. Thermal Explosion Induced in a Collisionless Plasma by a Relativistic Electron Beam - 13, 139 [13, 197]
Amaglobeli, N. S., Yu. A. Budagov, V. B. Vino-

gradov, A. G. Volod'ko, V. P. Dzhelepov, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, R. G. Salukvadze, V. B. Flyagin, D. I. Khubua, and L. Sandor. Coherent Production of Three Pions by π^- Mesons with Momentum 5 GeV/c on Carbon Nuclei - 14, 385 [14, 558]

Ambartsumyan, R. V., V. N. Kalinin, and V. S. Letokhov. Two-step Selective Photoionization of Rubidium Atoms by Laser Radiation - 13, 217 [13, 305]

Andreev, A. F. and D. A. Kompaneets. Surface Second Sound in Liquid Helium - 13, 511 [13, 720]

Andreev, V. N., B. A. Tallerchik, and F. A. Chudnovskii. Influence of a Strong Electric Field on the Temperature of the Dielectric-metal Phase Transition in $(V_{0.91}Cr_{00.9})_2O_3$ - 13, 376 [13, 527]

Andreeva, T. L., S. V. Kuznetsova, A. I. Maslov, I. I. Sobel'man, and V. N. Sorokin. Investigation of Reactions of Excited Iodine Atoms with the Aid of a Photodissociation Laser - 13, 449 [13, 631]

Andrianov, G. O. (see Zemskii, V. I.) - 13, 344 [13, 483]

Andronikashvili, E. L., N. G. Politov, I. M. Paperno, and A. K. Razmadze. Plasticity of Reactor-irradiated LiF Crystals - 13, 310 [13, 436]

_, S. M. Ashimov, and Dzh. S. Tsakadze. Influence of Reactor Irradiation at Helium Temperature on the Pinning of Abrikosov Fluxoids in Single-crystal Niobium - 14, 197 [14, 299]

Andryukhina, E. D., R. Blanken, G. S. Voronov, N. P. Donskaya, M. S. Rabinovich, A. D. Smirnova, O. I. Fedyanin, Yu. V. Khol'nov, and I. S. Shpigel'. Injection of Laser Plasma into a Stellarator - 14, 210 [14, 317]

Andryushin, V. I., S. M. Bilen'kii, and S. S. Gershtein. Possible Method of Measuring the Electromagnetic Form Factor of the Neutrino - 13, 409 [13, 573]

Angeleiko, V. V. (see Akhiezer, I. A.) - 14, 295 [14, 434]

Antokol'skii, G. L., L. N. Fershtat, and V. A. Shutilov. Acoustic Nuclear Effect-solide in Lithium Fluoride - 13, 286 [13, 404]

Antonov, E. N., M. A. Bol'shov, V. G. Koloshnikov, and D. N. Nikogosyan. Nonlinear Conversion of IR Radiation into Visible Light as a New Method of Absorption Spectral Analysis - 14, 15 [14, 23]

Anzon, Z. V., Zh. S. Takibaev, and I. Ya. Chasnikov. Interaction of Negative Pions in Nuclear Emulsion at Energies 7.5, 17, and 60 GeV - 14, 273 [14, 405]

Arl't, R., B. Bayar, N. G. Zaitseva, B. Kratsik, A. F. Novgorodov, F. Severa, and Chang Than Min. The New Isotope ^{92}Ru - 13, 397 [13, 556]

Aronov, A. G., V. G. Krigel', and I. I. Farbshtein. Scattering by Quasistationary State in Tellurium - 14, 203 [14, 307]

Artobolevskaya, E. S. (see Zhdan, A. G.) - 14, 105 [14, 161]

Artsimovich, L. A. Electronic Thermal Conductivity in a Toroidal Plasma Loop - 13, 70 [13, 101]

Asche, M., Yu. G. Zav'yalov, and O. G. Sarbei. Linear Effect of Magnetoresistance of Many-valley Semiconductors in Heating Electric Fields - 13, 285 [13, 401]

Ashimov, S. M. (see Andronikashvili, E. L.) - 14, 197 [14, 299]

Askar'yan, G. A. Self-focusing of Powerful Sound During the Production of Bubbles - 13, 283 [13, 395]

_ and N. M. Tarasova. Plasma of a Light Spark in a Gas Cloud. Directed Ejection of a Plasma and Acceleration of a Fireball of a Light Spark - 14, 58 [14, 89]

_, Kh. A. Diyanov, and M. Mukhamadzhanov. New Experiments on the Formation of a Self-focusing Filament from the Focus of the Beam on the Surface of a Medium - 14, 308 [14, 452]

Asnin, V. M. and A. A. Rogachev. Dielectric - Metal Transition in the System of Excitons in Germanium - 14, 338 [14, 494]

Atrashkevich, V. B., O. V. Vedeneev, and G. B. Khristiansen. Singularities of the Lateral Distribution of Radio Emission of Extensive Air Showers - 13, 51 [13, 76]

Atutov, S. N., A. G. Nikitenko, S. G. Rautian, and E. G. Saprykin. Experimental Investigation of the Differential Cross Section of Elastic Scattering of Excited Atoms by Electrons of a Gas-discharge Plasma - 13, 163 [13, 232]

Avakyan, K. M., R. B. Aivazyan, V. M. Krishchian, and E. M. Matevosyan. Results of Investigation of a Wide-gap Spark Chamber with Compensation of the Particle-track Drift - 14, 239 [14, 357]

Avenarius, I. A., R. N. Kuz'min, and A. A. Opalenko. Anisotropy of the Mossbauer Effect in Antimony Single Crystals - 14, 331 [14, 484]

Azbel', M. Ya. and R. G. Mints. Resonance in Superconductors - 13, 60 [13, 89]

Babaev, Z. R. Constancy of Total Cross Sections and the Process $\pi^-p \to \gamma n$ - 14, 359 [14, 523]

Babenko, V. A. (see Malyshev, V. I.) - 13, 419 [13, 588]

_, V. I. Malyshev, and A. A. Sychev. Method of Reducing the Relaxation Time of a Passive Neodymium-glass Laser Shutter - 14, 314 [14, 461]

Babkin, G. I. and V. Ya. Kravchenko. Slowing Down of Dislocations in Ferromagnets - 13,

19 [13, 30]
_, V. T. Dolgopolov, and V. Ya. Kravchenko. Electromagnetic Generation of Sound in Bi - 13, 402 [13, 563]
Baier, V. N. and V. S. Fadin. Electroproduction in Colliding-beam Experiments - 13, 208 [13, 293]
Bakai, A. S. (see Krivoruchko, S. M.) - 13, 262 [13, 369]
Balkarei, Yu. I. and E. V. Chenskii. Possibility of Generating Infrared Radiation by Polarization Reversal of a Ferroelectric - 13, 190 [13, 266]
Baranskii, K. N., G. A. Sever, and T. S. Velichina. Propagation of Transverse Hypersonic Waves in Low-viscosity Liquids - 13, 34 [13, 52]
Baratov, D. G. (see Demirkhanov, R. A.) - 14, 122 [14, 184]
Bardin, D. Yu., G. V. Mitsel'makher, and N. M. Shumeiko. Determination of the Mass of the Muonic Neutrino in Radiative Pion Decays - 13, 273 [13, 383]
Barkov, L. M., I. I. Gurevich, L. A. Makar'ina, V. P. Marem'yanov, A. P. Mishakova, V. V. Ogurtsov, L. V. Surkova, V. G. Tarasenkov, S. Kh. Khakimov, L. A. Chernysheva, and S. A. Chueva. Measurement of the Magnetic Moment of the Λ^0 Hyperon - 14, 60 [14, 93]
Barts, B. I. (see Akhiezer, I. A.) - 14, 368 [14, 535]
Basov, N. G., V. V. Gromov, E. L. Koshelev, E. P. Markin, A. N. Oraevskii, D. S. Shapovalov, and V. A. Shcheglov. CW Chemical Laser Using DF-CO_2 - 13, 352 [13, 496]
_, V. A. Boiko, S. M. Zakharov, O. N. Krokhin, and G. V. Sklizkov. Generation of Neutrons in a Laser CD_2 Plasma Heated by Pulses of Nanosecond Duration - 12, 489 [13, 691]
_, E. P. Markin, A. N. Oraevskii, A. V. Pankratov, and A. N. Skachkov. Stimulation of Chemical Processes by Infrared Laser Radiation - 14, 165 [14, 251]
_, E. M. Belenov, V. A. Danilychev, O. M. Kerimov, I. B. Kovsh, and A. F. Suchkov. Gas Lasers at High Pressures - 14, 285 [14, 421]
_, E. M. Belenov, V. A. Danilychev, and A. F. Suchkov. Possibility of Producing Tunable Infrared Gas Lasers - 14, 375 [14, 545]
Batanov, G. M. and K. A. Sarksyan. Resonance of Anomalous Microwave Heating of Electrons in a Magnetized Plasma - 13, 384 [13, 539]
_ and V. A. Silin. Self-action of an Electromagnetic Wave in a Dense Collisionless Plasma - 14, 303 [14, 445]
Bayar, B. (see Arl't, R.) - 13, 397 [13, 556]
Bayukov, O. A., V. P. Ikonnikov, M. I. Petrov, V. N. Seleznev, R. P. Smolin, and V. V. Uskov. Investigation of Fe_3BO_6 by the Nuclear γ Resonance Method - 14, 32 [14, 49]
Baz', A. I. Effect of Strong Repulsion of Compound Particles (Nuclei, Atoms) at Short Distances - 14, 423 [14, 607]
Bekkauer, N. N. (see Zagoruiko, N. V.) - 14, 186 [14, 283]
Belenov, E. M. (see Afanas'ev, Yu. V.) - 13, 182 [13, 257]
_ (see Afanas'ev, Yu. V.) - 13, 331 [13, 462]
_ (see Basov, N. G.) - 14, 285 [14, 421]
_ (see Basov, N. G.) - 14, 375 [14, 545]
Belyakov, V. A. Coherent Radiation of Charged Particles Channelled in a Crystal - 13, 179 [13, 254]
Berdyev, A. A. and I. B. Lezhnev. Transverse Sound in Liquids - 13, 32 [13, 49]
Berenblyum, A. S., L. I. Buravov, M. L. Khidekel', I. F. Shchegolev, and E. B. Yakimov. Electric Properties of Linear Conducting Chains of Pt Atoms in $K_2Pt(CN)_4Br_{0.3}\cdot 2.3H_2O$ - 13 440 [13, 619]
Berezin, A. K., Ya. B. Fainberg, L. I. Bolotin, A. M. Egorov, and V. A. Kiselev. Experimental Investigation of the Interaction of Modulated Relativistic Beams with a Plasma - 13, 354 [13, 498]
_ (see Berezina, G. P.) - 14, 8 [14, 13]
_ (see Berezina, G. P.) - 14, 49 [14, 77]
_, G. P. Berezina, N. S. Erokhin, S. S. Moiseev, and Ya. B. Fainberg. Influence of Longitudinal Density Gradient on the Transformation and Emission of Transverse Waves from a Beam-plasma Discharge - 14, 97 [14, 149]
Berezina, G. P., A. K. Berezin, and V. P. Zeidlits. Experimental Investigation of the Nonlinear Stages of Development of Ion-acoustic Instability in a Plasma-beam Discharge - 14, 8 [14, 13]
_, A. K. Berezin, and V. P. Zeidlits. Experimental Investigation of Stochastic Acceleration of Ions in an Intense Plasma-beam Discharge - 14, 49 [14, 77]
_ (see Berezin, A. K.) - 14, 97 [14, 149]
Berman, I. V., N. B. Brandt, and V. I. Sidorov. Superconductivity of Gallium Arsenide at High Pressures - 14, 11 [14, 18]
Bessarab, Ya. Ya. (see Gadetskii, N. P.) - 14, 101 [14, 155]
Bezrukov, G. N. (see Samoilovich, M. I.) - 14, 379 [14, 551]
Bibliashvili, M. F. Groups of Parallel Penetrating Particles and Their Possible Sources - 13, 457 [13, 643]
Bilak, V. I., G. M. Zverev, G. O. Karapetyan, and A. M. Onishchenko. Excitation Energy Transfer between Trivalent Rare-earth Ions, Stimulated by a Radiation Field - 14, 199 [14, 301]
Bilen'kii, S. M. (see Andryushin, V. I.) - 13, 409 [13, 573]
Blanken, R. (see Andryukhina, E. D.) - 14, 210 [14, 317]

Blokh, M. D. (see Molin, V. N.) - 14, 215 [14, 323]
Blokh, O. G. Electrogyration Effects in Quartz Crystals - 13, 81 [13, 118]
Bobrovskii, G. A. and K. A. Razumova. Dependence of the Energy Loss from a Tokamak Plasma on the Effective Electron Collision Frequency - 14, 99 [14, 153]
Bogdankevich, O. V. and A. A. Rukhadze. Possibility of Producing High Pressure in a Solid by Means of a Strong-current Electron Beam - 13, 369 [13, 517]
Bogdanov, V. L. (see Klochkov, V. P.) - 13, 31 [13, 47]
Bogod, Yu. A., B. I. Verkin, V. B. Krasovitskii, and S. V. Tsivinskii. Influence of Twins on the Magnetoresistance of Sb - 13, 349 [13, 491]
Boiko, V. A. (see Basov, N. G.) - 13, 489 [13, 691]
Boldea, V., Yu. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, N. G. Grigoryan, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, A. A. Kuznetsov, Yu. F. Lomakin, G. Martinska, N. N. Mel'nikova, A. Mikhul, T. Ponta, S. Felea, V. B. Flyagin, B. Chadraa, L. Sandor, and P. V. Shlyapnikov. Investigation of the K^0K^0 System in π^-p Interactions at 4.0 and 5.0 GeV/c - 14, 278 [14, 412]
Bolotin, L. I. (see Berezin, A. K.) - 13, 354 [13, 498]
Bol'shov, M. A. (see Antonov, E. N.) - 14, 15 [14, 23]
Bonch-Bruevich, A. M., V. A. Khodovoi, and V. V. Khromov. Induced Emission on a Number of Transitions of the Rubidium Atom Following Two-photon Excitation - 14, 333 [14, 487]
Bondarenko, L. N. (see Erozolimskii, B. G.) - 13, 252 [13, 356]
Bondarenko, M. D. (see Soskin, M. S.) - 14, 17 [14, 27]
Boos, E. G. (see Takibaev, Zh. S.) - 13, 83 [13, 122]
Borman, V. D., B. I. Nikolaev, and V. I. Troyan. Certain Dispersion Effects in Molecular Gases in Parallel Constant and Alternating Magnetic Fields - 13, 221 [13, 311]
Borovik-Romanov, A. S., N. M. Kreines, and M. A. Talalaev. Magnetic Birefringence in Antiferromagnetic MnF_2 - 13, 54 [13, 80]
Borshkovskii, I. A., V. D. Volovik, I. A. Grishaev, G. P. Dubovik, I. I. Zalyubovskii, and V. V. Petrenko. Excitation of Ultrasonic Waves by Passage of Fast Electrons Through a Metal - 13, 390 [13, 546]
Braginskii, V. B. and M. V. Menskii. High-frequency Detection of Gravitational Waves - 13, 417 [13, 585]
Brandt, N. B. and S. M. Chudinov. Formation of an Exciton Dielectric Phase in a Magnetic Field in a Metal-semiconductor Transition - 13, 102 [13, 146]
_ (see Berman, I. V.) - 14, 11 [14, 18]
Bratolyubova-Tsulukidze, L. S., L. F. Kalinkin, A. S. Melioranskii, O. F. Prilutskii, E. A. Pryakhin, I. A. Savenko, and V. Ya. Yufarkin. Upper Limits of Luminosity of Certain Extragalactic Objects in the Hard γ-Ray Region - 13, 404 [13, 566]
Brik, A. B. (see Zevin, V. Ya.) - 13, 268 [13, 376]
Brodin, M. S. and A. M. Kamuz. Concerning the Nature of the Nonlinearity of the NaCl Crystal - 13, 119 [13, 170]
Brodskii, Yu. Ya., B. G. Eremin, A. G. Litvak, and Yu. A. Sakhonchik. Self-trapping of Powerful Electromagnetic Waves in a Dense Plasma - 13, 95 [13, 136]
Broude, V. L. and A. V. Leiderman. New Data on the Structure of Optical Absorption in the Region of Isotopic-impurity Exciton States of Naphthalene Crystals - 13, 302 [13, 426]
Buchikhin, A. P., V. I. Gol'danskii, and V. P. Shantarovich. Temperature Dependence of the Lifetime of Triplet Positronium in Aliphatic Hydrocarbons and Their Derivatives - 13, 444 [13, 624]
Budagov, Yu. A., V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, V. S. Kladnitskii, N. K. Kutsidi, Yu. F. Lomakin, V. A. Maksimenko, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, and L. Sandor. Possible Existence of $\pi^-\gamma$ Resonance with Mass 270 MeV - 13, 471 [13, 665]
_, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, V. S. Kladnitskii, N. K. Kutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, and L. Sandor. Search for Baryon Resonances in the pγ System - 14, 243 [14, 363]
_ (see Boldea, V.) - 14, 278 [14, 412]
_ (see Amaglobeli, N. S.) - 14, 385 [14, 558]
Budker, G. I., V. V. Mirnov, and D. D. Ryutov. Influence of Corrugation of the Magnetic Field on the Expansion and Cooling of a Dense Plasma - 14, 212 [14, 320]
Bud'ko, N. I., V. I. Karpman, and O. A. Pokhotelov. Nonlinear Effects in the Propagation of Monochromatic VLF Waves (Helicons) in the Magnetosphere - 14, 320 [14, 469]
Budnev, V. M. and I. F. Ginzburg. Electromagnetic Contributions to the Total Cross Section of Hadron Scattering - 13, 370 [13, 519]
Bugai, A. A. and V. M. Maksimenko. Fieldless Temperature Resonance in Ruby (T-resonance) - 13, 380 [13, 533]
Bunkin, F. V., N. V. Karlov, V. M. Komissarov, and G. P. Kuz'min. Excitation of Sound When a Surface Layer of a Liquid Absorbs a Laser Pulse - 13, 341 [13, 479]
Buravov, L. I. (see Berenblyum, A. S.) - 13,

440 [13, 619]
Butuzov, V. P. (see Samoilovich, M. I.) - 14, 379 [14, 551]
Buzukov, A. A. and V. S. Teslenko. Sonoluminescence Following Focusing of Laser Radiation into a Liquid - 14, 189 [14, 286]
Bydin, Yu. F., V. I. Ogurtsov, and V. S. Sirazetdinov. Penning Ionization in Collision of Fast Unexcited Rb Atoms with Ar Atoms - 13, 240 [13, 340]
Bykov, A. M., A. V. Voronel', V. A. Smirnov, and V. V. Shchekochikhina. Experimental Verification of Similarity Theory at the Critical Point of Ar - 13, 21 [13, 33]
Bykov, V. N. (see Miron, N. F.) - 13, 485 [13, 686]
_ (see Golovkin, V. S.) - 14, 257 [14, 382]
Bykovskii, Yu. A., M. F. Gryukanov, V. G. Degtyarev, N. N. Degtyarenko, V. F. Elesin, I. D. Laptev, and V. N. Nevolin. Angular Distribution of the Ions of a Laser Plasma - 14, 157 [14, 238]
Chadraa, B. (see Boldea, V.) - 14, 278 [14, 412]
Chang Than Min (see Arl't, R.) - 13, 397 [13, 556]
Chasnikov, I. Ya. (see Anzon, Z. V.) - 14, 273 [14, 405]
Chechin, V. A. (see Kirzhnits, D. A.) - 14, 172 [14, 261]
Chenskii, E. V. (see Baikarei, Yu. I.) - 13, 190 [13, 266]
_ (see Zhdan, A. G.) - 14, 105 [14, 161]
Chernaya, N. S. (see Zhabitenko, N. K.) - 14, 312 [14, 458]
Chernov, A. S. (see Iroshnikov, G. S.) - 13, 265 [13, 372]
Chernysheva, L. A. (see Barkov, L. M.) - 14, 60 [14, 93]
Chervonenkis, A. Ya. (see Kraftmakher, G. A.) - 14, 152 [14, 231]
_ (see Doroshev, V. D.) - 14, 343 [14, 501]
Chigir', N. A. (see Kostin, N. N.) - 14, 410 [14 589]
Chirkin, A. S. (see Akhmanov, S. A.) - 13, 514 [13, 724]
Chistyi, I. L. (see Kitaeva, V. F.) - 13, 435 [13, 611]
Chizhikov, S. I., N. G. Sorokin, B. I. Ostrovskii, and V. A. Meleshina. Anomalous Absorption of Elastic Waves in Phase Transition in Gadolinium Molybdate - 14, 336 [14, 490]
Chmyrev, V. M. (see Likhter, Ya. I.) - 14, 325 [14, 475]
Chudinov, S. M. (see Brandt, N. B.) - 13, 102 [13, 146]
Chudnovskii, F. A. (see Andreev, V. N.) - 13, 376 [13, 527]
Chueva, S. A. (see Barkov, L. M.) - 14, 60 [14, 93]
Chuyanov, V. A. and E. G. Murphy. Experiments on the Stabilization of Flute Instability with the Aid of an Integrating Feedback System - 13, 395 [13, 553]
Cser, L. (see Ovanesyan, N. S.) - 13, 347 [13, 488]
Dagman, E. I. (see Molin, V. N.) - 14, 215 [14, 323]
Dal'karov, O. D., V. B. Mandel'tsveig, and V. A. Khoze. Possibility of Observing Quasinuclear Meson Resonances in Colliding e^+e^- Beams - 14, 87 [14, 131]
_, B. O. Kerbikov, V. B. Mandel'tsveig, and I. S. Shapiro. New Type of Baryon Resonances - 14, 127 [14, 191]
Danilychev, V. A. (see Basov, N. G.) - 14, 285 [14, 421]
_ (see Basov, N. G.) - 14, 375 [14, 545]
Davydov, B. L., M. E. Zhabotinskii, V. F. Zolin, L. G. Koreneva, and M. A. Samokhina. Observation of Vector Synchronism in Generation of the Sound Harmonic of a Neodymium Laser with Single Crystals of Metanitroaniline - 13, 238 [13, 336]
Davydov, L. N. (see Akhiezer, I. A.) - 13, 271 [13, 380]
Degtyarenko, N. N. and V. F. Elesin. Possible Instability, Due to Triple Recombination, of the States of a Semiconductor Illuminated by Intense Light - 13, 326 [13, 456]
_ (see Bykovskii, Yu. A.) - 14, 157 [14, 238]
Degtyarev, V. G. (see Bykovskii, Yu. A.) - 14, 157 [14, 238]
Demikhovskii, V. Ya. (see Protogenov, A. P.) - 14, 356 [14, 518]
Demin, V. F. A Note on the Asymptotic Condition of Nuclear-force Saturation - 14, 419 [14, 602]
Demirkhanov, R. A., M. A. Stotland, Sh. V. Khil', and D. G. Baratov. Influence of High-frequency Potential of a Toroidal Electric Field on the Trapping of Charged Particles in a Closed Magnetic Trap - 14, 122 [14, 184]
Deryagin, B. V. (see Fedoseev, D. V.) - 14, 51 [14, 80]
Dikii, A. G., V. M. Zalkind, G. V. Zelenin, V. G. Konovalov, V. D. Kotsubanov, A. P. Litvinov, O. S. Pavlichenko, N. F. Perepelkin, N. P. Ponomarenko, V. A. Suprunenko, V. T. Tolok, and V. M. Tonkopryad. Experimental Investigations of Containment of a Hot-electron Plasma in the "Uragan" Stellarator - 14, 245 [14, 366]
Diyanov, Kh. A. (see Askar'yan, G. A.) - 14, 308 [14, 452]
Djir, P. (see Alekseevskii, N. E.) - 14, 169 [14, 256]
Dmitriev, R. P. (see Trunov, V. A.) - 14, 146 [14, 223]
Dmitrive, V. F. Electroproduction of Pions on Nuclei in Bound States - 14, 81 [14, 124]
Dnestrovskii, Yu. N., D. P. Kostomarov, and

N. L. Pavlova. Compression Plasma by a Growing Longitudinal Magnetic Field in the Tokamak - 13, 493 [13, 697]
Dokashenko, V. P. (see Shil'shtein, S. Sh.) - 13, 214 [13, 301]
Dolgopolov, V. T. (see Babkin, G. I.) - 13, 402 [13, 563]
Donskaya, N. P. (see Andryukhina, E. D.) - 14, 210 [14, 317]
Doroshev, V. D., N. M. Kovtun, V. N. Seleznev, and V. M. Siryuk. Nuclear Magnetic Resonance of Fe^{57} in $FeBO_3$ Single Crystals - 13, 475 [13, 672]
_, N. M. Kovtun, E. E. Solov'ev, A. Ya. Chervonenkis, and A. A. Shemyakov. Investigation of Spin Reorientation in Single-crystal $TmFeO_3$ by the NMR Method - 14, 343 [14, 501]
Drabkin, G. M., A. I. Okorokov, V. I. Volkov, and A. F. Shchebetov. Inhomogeneous Magnetization of Nickel Near the Curie Point - 13, 1 [13, 3]
Dranova, Zh. I., A. M. D'yachenko, and I. M. Mikhailovskii. Crowdion Mechanism of Plastic Deformation - 13, 27 [13, 40]
Dreizin, Yu. A. and A. M. Dykhne. Magnetoresistance of Polycrystals and Its Size Effect - 14, 66 [14, 101]
Dubovik, G. P. (see Borshkovskii, I. A.) - 13, 390 [13, 546]
Dubovtsev, I. A. and F. A. Sidorenko. Observation of Small Polarons in β-FeSi with the Aid of the Mossbauer Effect - 14, 134 [14, 205]
Dumbrais, O. V. Verification of Models of the Asymptotic Behavior of $\pi^{\pm}p$ Scattering Amplitudes - 13, 224 [13, 315]
Dumesh, B. S. Spin Echo on Mn^{55} Nuclei in Easy-plane Antiferromagnets $CsMnF_3$ and $MnCO_3$ - 14, 350 [14, 511]
D'yachenko, A. M. (see Dranova, Zh. I.) - 13, 27 [13, 40]
Dyadyusha, G. G., O. V. Przhonskaya, E. A. Tikhonov, and M. T. Shpak. Intense Fluorescence from the Second Excited State of Molecular Solutions of Organic Dyes - 14, 220 [14, 330]
D'yakonov, M. I. and V. I. Perel'. Feasibility of Optical Orientation of Equilibrium Electrons in Semiconductors - 14, 144 [13, 206]
_ and V. I. Perel'. Possibility of Orienting Electron Spins with Current - 13, 467 [13, 657]
D'yakov, Yu. E. (see Akhmanov, S. A.) - 13, 514 [13, 724]
Dykhne, A. M. (see Dreizin, Yu. A.) - 14, 66 [14, 101]
Dyubko, S. F. and M. N. Efimenko. Detecting Properties of Metal-InSb Point Contact at a Wavelength of 337 μ and T = 300°K - 13, 379 [13, 531]
Dzhelepov, V. P. (see Budagov, Yu. A.) - 13, 471 [13, 665]
_ (see Budagov, Yu. A.) - 14, 243 [14, 363]
_ (see Boldea, V.) - 14, 278 [14, 412]
_ (Amaglobeli, N. S.) - 14, 385 [14, 558]
Dzhidzhoev, M. S., V. V. Korolev, V. N. Markov, V. G. Platonenko, and R. V. Khokhlov. Detonation Gasdynamic Laser - 14, 47 [14, 73]
Dzhioev, R. I. (see Zakharchenya, B. P.) - 13, 137 [13, 195]
_ (see Fleisher, V. G.) - 13, 299 [13, 422]
_, B. P. Zakharchenya, and V. G. Fleisher. Optical Orientation of Electron Spins and Band Splitting in Doped Semiconductors - 14, 381 [14, 553]
Edel'shtein, V. M. (see Mel'nikov, V. I.) - 13, 192 [13, 269]
Efimenko, M. N. (see Dyubko, S. F.) - 13, 379 [13, 531]
Efros, A. L. (see Shklovskii, B. I.) - 14, 233 [14, 348]
Egorov, A. I. (see Trunov, V. A.) - 14, 146 [14, 223]
Egorov, A. M. (see Berezin, A. K.) - 13, 354 [13, 498]
Ekimov, A. I. (see Garbuzov, D. Z.) - 13, 24 [13, 36]
_ and V. I. Safarov. Observation of Optical Orientation of Equilibrium Electrons in n-Type Semiconductors - 13, 177 [13, 251]
_ and V. I. Safarov. Influence of Spin Relaxation of "Hot" Electrons in the Effectiveness of Optical Orientation in Semiconductors - 13, 495 [13, 700]
_ (see Gross, E. F.) - 14, 70 [14, 108]
Eleonskii, V. M. and V. P. Silin. Self-focusing of a Vector Field - 13, 117 [13, 167]
Elesin, V. F. (see Degtyarenko, N. N.) - 13, 326 [13, 456]
_ (see Bykovskii, Yu. A.) - 14, 157 [14, 238]
Eliashberg, G. M. (see Ivlev, B. I.) - 13, 333 [13, 464]
Emtsev, V. V. (see Shlimak, I. S.) - 13, 107 [13, 153]
_ and T. V. Mashovets. Vacancy-donor Complexes in Germanium - 13, 478 [13, 675]
_ (see Gershenzon, E. M.) - 14, 241 [14, 360]
Epshtein, E. M. Amplification of High-frequency Phonons in the Field of an Electromagnetic Wave - 13, 364 [13, 511]
Eremin, B. G. (see Brodskii, Yu. Ya.) - 13, 95 [13, 136]
_ and A. G. Litvak. Observation of Self-focusing of Electromagnetic Waves in a Plasma - 13, 430 [13, 603]
Eremin, V. I., L. V. Norinskii, and V. A. Pryadein. Frequency Dependence of the Threshold of Optical Breakdown in Air in the Ultraviolet Band - 13, 307 [13, 433]
Ermakov, G. A. and E. M. Nadgornyi. Low-temperature Quenching of the Photochemical Effect in γ-irradiated NaCl Crystals - 14, 29 [14, 45]

Erokhin, N. S. (see Berezin, A. K.) - 14, 97 [14, 149]
Erozolimskii, B. G., L. N. Bondarenko, Yu. A. Mostovoi, B. A. Obinyakov, V. P. Fedunin, and A. I. Frank. Measurement of the Angular Correlation Between the Neutron Spin and the Electron Momentum in the Decay of Polarized Neutrons - 13, 252 [13, 356]
Eselevich, V. G., A. G. Es'kov, R. Kh. Kurtmullaev, and A. I. Malyutin. Isomagnetic Discontimuity in a Collisionless Shock Wave in a Plasma - 13, 49 [13, 73]
Es'kov, A. G. (see Eselevich, V. G.) - 13, 49 [13, 73]
(see Altyntsev, A. T.) - 13, 139 [13, 197]
Estrin, E. I. Temperature Stability of the Metallic Modification of Hydrogen - 13, 510 [13, 719]
Fadeev, V. V. (see Yanait, Yu. A.) - 13, 438 [13, 616]
Fadin, V. S. (see Baier, V. N.) - 13, 208 [13, 293]
Fainberg, Ya. B. (see Berezin, A. K.) - 13, 354 [13, 498]
(see Berezin, A. K.) - 14, 97 [14, 149]
Faizullov, F. S. (see Kovalev, V. I.) - 14, 344 [14, 503]
Farbshtein, I. I. (see Aronov, A. G.) - 14, 203 [14, 307]
Fateeva, N. S. and L. F. Vereshchagin. Concerning the Melting Point of Graphite up to 90 kbar - 13, 110 [13, 157]
and L. F. Vereshchagin. Melting Curve of Molybdenum up to 90 kbar - 14, 153 [14, 233]
Fedorenko, N. V. (see Oparin, V. A.) - 13, 249 [13, 351]
Fedorov, M. A. (see Gandel'man, G. M.) - 13, 127 [13, 180]
(see Gor'kov, L. P.) - 14, 393 [14, 568]
Fedoseev, D. V., E. M. Galimov, V. P. Varnin, V. S. Prokhorov, and B. V. Deryagin. Fractionization of Carbon Isotopes in the Synthesis of Diamonds from Gas - 14, 51 [14, 80]
Fedosimov, V. I. (see Stishov, S. M.) - 14, 217 [14, 326]
Fedunin, V. P. (see Erozolimskii, B. G.) - 13, 252 [13, 356]
Fedyakov, V. P. (see Gosteva, T. S.) - 14, 103 [14, 158]
Fedyanin, O. I. (see Andryukhina, E. D.) - 14, 210 [14, 317]
Felea, S. (see Boldea, V.) - 14, 278 [14, 412]
Feofilov, P. P. (see Ovsyankin, V. V.) - 14, 377 [14, 548]
Ferdman, N. A. (see Kovarskii, V. A.) - 14, 55 [14, 85]
Fershtat, L. N. (see Antokol'skii, G. L.) - 13, 286 [13, 404]
Filimonov, G. D. (see Shepelev, A. G.) - 14, 290 [14, 428]
Filippovich, E. I. (see Alekseevskii, N. E.) - 13, 174 [13, 247]
Fleisher, V. G. (see Zakharchenya, B. P.) - 13, 137 [13, 195]
, R. I. Dzhioev, B. P. Zakharchenya, and L. M. Kanskaya. Spin Relaxation of Electrons Oriented by Light in a GaAs Crystal - 13, 299 [13, 422]
(see Dzhioev, R. I.) - 14, 381 [14, 553]
Flyagin, V. B. (see Budagov, Yu. A.) - 13, 471 [13, 665]
(see Budagov, Yu. A.) - 14, 243 [14, 363]
(see Boldea, V.) - 14, 278 [14, 412]
(see Amaglobeli, N. S.) - 14, 385 [14, 558]
Fok, M. V. and E. Yu. L'vova. Ionization Instability and Motion of Glowing Spots in Na_2ZnGeO_4:Mn Crystals - 13, 245 [13, 346]
Fomin, P. I. (see Akhiezer, A. I.) - 13, 506 [13, 713]
Frank, A. I. (see Erozolimskii, B. G.) - 13, 252 [13, 356]
Frank-Kamenetskii, M. D. (see Ivanov, A. A.) - 14, 283 [14, 419]
Frankevich, E. L. and I. A. Sokolik. Influence of Magnetic Field on the Rate of Photooxidation of Aromatic Hydrocarbons - 14, 401 [14, 577]
Frankfurt, L. L. Power-Law Increase of Amplitude of Scattering of Large-spin Virtual Particle with Increasing Energy - 13, 462 [13, 650]
Fykin, L. E. (see Miron, N. F.) - 13, 485 [13, 686]
Gabovich, M. D. and A. P. Naida. Exchange of Energy Between Collectively-interacting Beams of Positive and Negative Ions - 14, 1 [14, 3]
Gadetskii, N. P., Yu. V. Tkach, V. V. Slezov, Ya. Ya. Bessarab, and I. I. Magda. New Mechanism of Coherent-radiation Generation in the Visible Region of the Spectrum in Ionized Oxygen and Nitrogen - 14, 101 [14, 155]
Gaidukov, Yu. P. and A. P. Perov. Surface Conductivity in Tin in a Strong Magnetic Field - 13, 219 [13, 307]
Galeev, A. A. and R. Z. Sagdeev. Limiting Plasma Pressure in a Tokamak - 13, 113 [13, 162]
Galimov, E. M. (see Fedoseev, D. V.) - 14, 51 [14, 80]
Gal'per, A. M. (see Volobuev, S. A.) - 13, 28 [13, 43]
Gal'tsov, D. V. and V. V. Skobelev. Splitting of a Photon in a Magnetic Field and Polarization of Hard Radiation from Pulsars - 13, 122 [13, 173]
Gamlitskii, V. Ya., S. S. Yakimov, V. I. Nikolaev, and N. F. Simonov. Observation of Induced Antiferromagnetism Above the Neel Point in FeF_3 - 13, 88 [13, 129]
Gandel'man, G. M. and M. A. Fedorov. Superconductivity Induced by Pressure - 13, 127 [13, 180]

Gandel'man, I. L., E. T. Sapa, E. A. Tikhonov, and M. T. Shpak. Nonstationary Generation of Solutions of Organic Dyes in Picosecond Optical Pumping - 14, 53 [14, 82]
Gangrskii, Yu. P., B. N. Markov, I. F. Kharisov, and Yu. M. Tsipenyuk. Excitation of Spontaneously Fissioning Isomer States ^{239}Pu and ^{243}Am in Inelastic Scattering of γ Quanta - 14, 249 [14, 370]
Garbuzov, D. Z., A. I. Ekimov, and V. I. Safarov. Measurement of the Lifetime and of the Spin-relaxation Time of Electrons in Semiconductors by the Optical-orientation Method - 13, 24 [13, 36]
Garibyan, G. M. (see Alikhanyan, A. I.) - 13, 142 [13, 201]
Gashin, P. A. (see Kovarskii, V. A.) - 14, 55 [14, 85]
Gavrilov, V. P. and A. A. Kolomenskii. "Transition Acceleration" of a Charged Particle Passing through a Boundary of an Inverted Dielectric - 14, 431 [14, 617]
Gerasimov, S. B. Virtual Excitation of Nucleon Isobars in Nuclei and Reactions of Quasielastic "Knockout" of Isobars of High Energies - 14, 260 [14, 385]
Gerdov, M. M. Concerning the Nature of the Cosmological Constant and the Mechanism of Gravitation of Vacuum - 13, 498 [13, 704]
Gershenzon, E. M. and G. N. Gol'tsman. Transitions of Electrons Between Excited States of Donors in Germanium - 14, 63 [14, 98]
_, G. N. Gol'tsman, and A. P. Mel'nikov. Binding Energy of a Carrier with a Neutral Impurity Atom in Germanium and in Silicon - 14, 185 [14, 281]
_, G. N. Gol'tsman, V. V. Emtsev, T. V. Mashovets, N. G. Ptitsyna, and S. M. Ryvkin. Role of Impurities of Groups III and V in the Formation of Defects Following γ Irradiation of Germanium - 14, 241 [14, 360]
_, Yu. P. Ladyzhinskii, and A. P. Mel'nikov. Concerning the New Mechanism of Carrier Recombination in Semiconductors - 14, 256 [14, 380]
Gershtein, S. S. (see Andryushin, V. I.) - 13, 409 [13, 573]
Gertsenshtein, M. E. Do Weber's Experiments Reveal the Photon Rest Mass? - 14, 427 [14, 611]
Ginzburg, I. F. (see Budnev, V. M.) - 13, 370 [13, 519]
Ginzburg, V. L. Manifestation of the Exciton Mechanism in the Case of Granulated Superconductors - 14, 396 [14, 572]
Glushkov, M. V. (see Veselago, V. G.) - 13, 247 [13, 349]
Gnatovskii, A. V. (see Soskin, M. S.) - 14, 17 [14, 27]
Gnedin, Yu. N. and O. S. Shulov. Observation of Variable Circular Polarization in the Optical Emission of the X-ray Source Sco X - 1 - 14, 348 [14, 507]
Godik, E. E., Yu. A. Kuritsyn, and V. P. Sinis Capture of Holes by Neutral Boron Atoms in Silicon - 14, 254 [14, 377]
Godzhaev, F. R. (see Aliev, F. Yu.) - 13, 480 [13, 679]
Gol'danskii, V. I. (see Aleksandrov, A. Yu.) - 13, 8 [13, 13]
_(see Aivazyan, G. M.) - 13, 388 [13, 543]
_and L. K. Peker. Possibility of Two-proton and Two-neutrino Radioactive Decay from Many-particle Isomeric States of Nuclei - 13, 412 [13, 577]
_(see Buchikhin, A. P.) - 13, 444 [13, 624]
Golenetskii, S. V. and E. P. Mazets. Cosmic Gamma Radiation in the 0.3 - 3.7 MeV Range - 14, 131 [14, 201]
Gol'fand, Yu. A. and E. P. Likhtman. Extension of the Algebra of Poincare Group Generators and Violation of P Invariance - 13, 323 [13, 452]
Golovkin, V. S., V. N. Bykov, and V. A. Levdik. Obtaining the "Single-Q" State of Chromium by Action of Low Temperatures in the Presence of a Magnetic Field [14, 257 [14, 382]
Golovnya, V. Ya. (see Shilyaev, B. A.) - 13, 473 [13, 668]
Gol'tsman, G. N. (see Gershenzon, E. M.) - 14, 63 [14, 98]
_(see Gershenzon, E. M.) - 14, 185 [14, 281]
_(see Gershenzon, E. M.) - 14, 241 [14, 360]
Goman'kov, V. I., I. M. Puzei, V. N. Sigaev, E. V. Kozis, and E. I. Mal'tsev. Fine Crystalline and Magnetic Structures of Iron-nickel Invars - 13, 428 [13, 600]
Gonchukov, S. A., O. E. Porodinkov, E. D. Protsenko, and V. A. Semchishen. Interaction of Three Modes of Gas Laser in the Locking Region - 14, 155 [14, 235]
Gorban', I. S., V. A. Gubanov, and A. P. Krokhmal'. Singlet and Triplet Exciton-impurity States in Semiconductors - 13, 482 [13, 682]
Gordeev, Yu. S. (see Afrosimov, V. V.) - 14, 275 [14, 408]
Gordienko, V. A. and V. I. Nikolaev. Magnetic Anomalies of the Thermal Expansion of Chromium - 14, 3 [14, 6]
Gordon, E. B. (see Shatrov, V. D.) - 13, 243 [13, 344]
Gor'kov, L. P. and M. A. Fedorov. Transparency of Thin Superconducting Films - 14, 393 [14, 568]
Goryaga, A. N. (see Nikolaev, V. I.) - 14, 135 [14, 208]
Gosteva, T. S. and V. P. Fedyakov. Fine Structure of the Distribution Function of Ions in the Plasma of a Strong-current z Discharge - 14, 103 [14, 158]
Govzdover, R. S. (see Zhdan, A. G.) - 14, 105 [14, 161]

Grasyuk, A. Z. (see Gvardzhaladze, T. L.) - 13, 111 [13, 159]
Gribnikov, Z. S. and V. V. Mitin. Domain Structure of Multi-valley Semiconductor in the Multiply-valued Sasaki Effect - 14, 182 [14, 272]
Gridasova, T. Ya. (see Nikolaev, V. I.) - 14, 135 [14, 208]
Grigor'ev, V. N. (see Zavaritskii, N. V.) - 14, 73 [14, 112]
Grigoryan, N. G. (see Boldea, V.) - 14, 278 [14, 412]
Grishaev, I. A. (see Borshkovskii, I. A.) - 13, 390 [13, 546]
Gromov, V. V. (see Basov, N. G.) - 13, 352 [13, 496]
Gross, E. F., V. I. Perel', and R. I. Shekhmamet'ev. Inverse Hydrogenlike Series in Optical Excitation of Light Charged Particles in a Bismuth Iodide (BiI_3) Crystal - 13, 229 [13, 320]
_, V. I. Safarov, A. N. Titkov, and I. S. Shlimak. Observation of Excited States and Experimental Determination of the Binding Energy of an Indirect Exciton in Germanium - 13, 235 [13, 332]
_, I. N. Ural'tsev, and R. I. Shekhmamet'ev. Magnetooptical Properties of the Bielectron in the BiI_3 Crystal - 13, 357 [13, 503]
_, A. I. Ekimov, B. S. Razbirin, and V. I. Safarov. Optical Orientation of Free and Bound Excitons in Hexagonal Crystals - 14, 70 [14, 108]
Gruzin, P. L. (see Alekseev, L. A.) - 14, 192 [14, 292]
Gryazanov, M. R. (see Alekseev, L. A.) - 14, 192 [14, 292]
Gryukanov, M. F. (see Bykovskii, Yu. A.) - 14, 157 [14, 238]
Gubanov, V. A. (see Gorban', I. S.) - 13, 482 [13, 682]
Gul'el'mi, A. V. Cyclotron Instability of the Outer Radiation Belt of the Earth Under Conditions of Self-modulation of Growing Waves - 13, 57 [13, 85]
Gurevich, I. I. (see Barkov, L. M.) - 14, 60 [14, 93]
_, E. A. Meleshko, I. A. Muratove, B. A. Nikol'skii, V. S. Roganov, V. I. Selivanov, and B. V. Sokolov. Relaxation of μ^+-meson Spin in Substances with Saturated Bonds - 14, 297 [14, 436]
Gurevich, L. E. and O. A. Mezrin. Contribution to the Theory of the Optoelectric Effect in a Magnetic Field - 14, 387 [14, 562]
Gurzhi, R. N. and A. I. Kopeliovich. Low Temperature Electric Conductivity of Metals with Open Fermi Surfaces - 13, 406 [13, 569]
Gutner, A. B., R. A. Zhitnikov, and A. I. Okunevich. Optical Orientation of Kr Atoms in the Metastable $^3P_2$ State - 13, 298 [13, 420]
Gvardzhaladze, T. L., A. Z. Grasyuk, I. G. Zubarev, P. G. Kryukov, and O. B. Shatberashvili. Interaction of an Ultrashort Neodymium-laser Pulse with GaAs - 13, 111 [13, 159]
Handrich, K. (see Schreiber, J.) - 14, 37 [14, 57]
Ikonnikov, V. P. (see Bayukov, O. A.) - 14, 32 [14, 49]
Il'in, R. N. (see Oparin, V. A.) - 13, 249 [13, 351]
Il'ina, M. A. and E. S. Itskevich. Superconductivity of Te at High Pressures - 13, 15 [13, 23]
Ionov, S. P. (see Aleksandrov, A. Yu.) - 13, 8 [13, 13]
Iroshnikov, G. S. and A. S. Chernov. Electromagnetic Form Factor for the Pion in the Dual Resonant Model - 13, 265 [13, 372]
Itskevich, E. S. (see Il'ina, M. A.) - 13, 15 [13, 23]
Ivanov, A. A. (see Vdovin, V. L.) - 14, 149 [14, 228]
_, A. A. Puretskii, A. V. Lukashin, V. I. Permogorov, and M. D. Frank-Kamenetskii. Electron-vibrational Spectrum of Dimers in the Case of Strong Coupling - 14, 283 [14, 419]
_, L. L. Kozorovitskii, V. D. Rusanov, R. Z. Sagdeev, and D. N. Sobolenko. Experimental Observation of Electronic Shock Waves in a Collisionless Plasma - 14, 412 [14, 593]
Ivanov, L. P. (see Vyshlov, S. S.) - 13, 90 [13, 131]
Ivanov, N. V., I. A. Kovan, and E. V. Los'. Generation of Magnetosonic Oscillations in the Tokamak TO-1 - 14, 138 [14, 212]
Ivanov, S. N., I. M. Kotelyanskii, G. D. Mansfel'd, and E. N. Khazanov. Nonlinear Effects in the Propagation of Hypersonic Waves in Indium Antimonide - 13, 201 [13, 283]
Ivlev, B. I. and G. M. Eliashberg. Influence of Nonequilibrium Excitations on the Properties of Superconducting Films in a High-frequency Field - 13, 333 [13, 464]
Kachalov, O. V. Concerning the Selection Rules in Mandel'shtam-Brillouin Scattering in Crystals - 13, 75 [13, 109]
Kadomtsev, B. B. and V. S. Kudryavtsev. Molecules in an Ultrastrong Magnetic Field - 13, 9 [13, 15]
_ and V. S. Kudryavtsev. Atoms in a Superstrong Magnetic Field - 13, 42 [13, 61]
Kaidalov, A. B. Splitting of A_2 Meson - 14, 262 [14, 387]
Kaitmazov, S. D., A. A. Medvedev, and A. M. Prokhorov. Effect of a 400-kOe Magnetic Field on a Laser-spark Plasma - 14, 208 [14, 314]
Kalashnikov, N. P., V. S. Remizovich, and M. I. Ryazanov. Distribution of Energy Losses for Heavy Positive Particles in a Single Crystal - 13, 508 [13, 715]
Kalinin, A. P. and V. B. Leonas. Scattering

and Deactivation of Metastable $N_2(A^3\Sigma_u^+)$ Molecules - 14, 329 [14, 481]
Kalinin, V. N. (see Ambartsumyan, R. V.) - 13, 217 [13, 305]
Kalinin, Yu. G. (see Zavoiskii, E. K.) - 13, 12, [13, 19]
Kalinkin, L. F. (see Bratolyubova-Tsulukidze, L. S.) - 13, 404 [13, 566]
Kaminskii, A. A. Temperature Pulsations and Multifrequency Generation of $YAlO_3:Nd^{3+}$ - 14, 222 [14, 333]
Kamuz, A. M. (see Brodin, M. S.) - 13, 119 [13, 170]
Kano, L. M. (see Shukhman, V. A.) - 13, 197 [13, 277]
Kanskaya, L. M. (see Fleisher, V. G.) - 13, 299 [13, 422]
Karamyan, Zh. K. (see Boldea, V.) - 14, 278 [14, 412]
Karapetyan, G. O. (see Bilak, V. I.) - 14, 199 [14, 301]
Karchevskii, A. I. and Yu. I. Strakhov. Thresholds of Two-stream Instability of Current in a Straight Discharge - 13, 424 [13, 595]
Karimov, Yu. S., M. E. Vol'pin, and Yu. N. Novikov. Layered Compounds of $NiCl_2$ with Graphite as Two-dimensional Heisenberg Ferromagnets - 14, 142 [14, 217]
Karlov, N. V. (see Bunkin, F. V.) - 13, 341 [13, 479]
_, Yu. B. Konev, and A. M. Prokhorov. Use of Lasers for Selective Breaking of Chemical Bonds - 14, 117 [14, 178]
_, N. A. Karpov, Yu. N. Petrov, A. M. Prokhorov, and O. M. Stel'makh. Excitation of an Explosion Wave by Initiating a Chain Reaction in a Gas Mixture with CO_2-laser Radiation - 14, 140 [14, 214]
Karmanov, V. A. Multibaryon Resonances with $B > 5$ in the Model with Exchange Δ-N Interaction - 14, 84 [14, 127]
Karpman, V. I. (see Bud'ko, N. I.) - 14, 320 [14, 469]
Karpov, N. A. (see Karlov, N. V.) - 14, 140 [14, 214]
Kats, A. V. and V. M. Kontorovich. Drift Stationary Solutions in the Theory of Weak Turbulence - 14, 265 [14, 392]
Kazakov, A. E., I. K. Krasyuk, P. P. Pashinin, and A. M. Prokhorov. Experimental Observation of the Amplification of Laser Radiation in the Interaction of Colliding Laser Beams in a Plasma - 14, 280 [14, 416]
Kerbikov, B. O. (see Dal'karov, O. D.) - 14, 127 [14, 191]
Kerimov, I. G. (see Aliev, F. Yu.) - 13, 480 [13, 679]
Kerimov, O. M. (see Basov, N. G.) - 14, 285 [14, 421]
Khachatryan, A. M. (see Aleshkevich, V. A.) - 13, 36 [13, 55]
Khait, V. (see Leontovich, M.) - 13, 414 [13, 579]
Khakimov, S. Kh. (see Barkov. L. M.) - 14, 60 [14, 93]
Kharisov, I. F. (see Gangrskii, Yu. P.) - 14, 249 [14, 370]
Kharzheev, Yu. N. (see Budagov, Yu. A.) - 13, 471 [13, 665]
Khasanov, A. Kh. (see Al'tshuler, S. A.) - 13, 382 [13, 535]
Khazanov, E. N. (see Ivanov, S. N.) - 13, 201 [13, 283]
Khidekel', M. L. (see Berenblyum, A. S.) - 13, 440 [13, 619]
Khil', Sh. V. (see Demirkhanov, R. A.) - 14, 122 [14, 184]
Khodovoi, V. A. (see Bonch-Bruevich, A. M.) - 14, 333 [14, 487]
_(see Kostin, N. N.) - 14, 410 [14, 589]
Khodusov, V. D. (see Akhiezer, A. I.) - 13, 114 [13, 164]
Khokhlov, R. V. (see Yanait, Yu. A.) - 13, 438 [13, 616]
_(see Dzhidzhoev, M. S.) - 14, 47 [14, 73]
_(see Sukhorukov, A. P.) - 14, 161 [14, 245]
Khokhlov, V. A. (see Kovtun, N. M.) - 14, 68 [14, 105]
Khol'nov, Yu. V. (see Andryukhina, E. D.) - 14, 210 [14, 317]
Khoze, V. A. (see Zaslavskii, A. N.) - 13, 500 [13, 706]
_(see Dal'karov, O. D.) - 14, 87 [14, 131]
Khristiansen, G. B. (see Atrashkevich, V. B.) - 13, 51 [13, 76]
Khromov, V. V. (see Bonch-Bruevich, A. M.) - 14, 333 [14, 487]
_(see Kostin, N. N.) - 14, 410 [14, 589]
Khubua, D. I. (see Amaglobeli, N. S.) - 14, 385 [14, 558]
Kirillov-Ugryumov, B. I. (see Volobuev, S. A.) - 13, 28 [13, 43]
_, V. I. Levina, A. K. Ponosov, V. P. Protasov, and F. M. Sergeev. Production of $\pi^+2\pi^-$ System of Nuclei at Small Momentum Transfers - 14, 110 [14, 168]
Kirzhnits, D. A. (see Volodin, V. A.) - 13, 320 [13, 450]
_and V. A. Chechin. Cosmic Rays and the Elementary Length - 14, 172 [14, 261]
Kiselev, V. A. (see Berezin, A. K.) - 13, 354 [13, 498]
Kitaeva, V. F. and I. L. Chistyi. Fine Structure of Rayleigh Line in Sapphire Crystal - 13, 435 [13, 611]
Kladnitskii, V. S. (see Budagov, Yu. A.) - 13, 471 [13, 665]
_(see Budagov, Yu. A.) - 14, 243 [14, 363]
_(see Boldea, V.) - 14, 278 [14, 412]
_(see Amaglobeli, N. S.) - 14, 385 [14, 558]
Klochkov, V. P., V. L. Bogdanov, and B. S. Neporent. Q Switching of a Ruby Laser by Dye

Vapors - 13, 31 [13, 47]
Klyucharev, A. P. (see Shilyaev, B. A.) - 13, 473 [13, 668]
Kmita, A. M. and A. V. Medved'. Transverse Acoustoelectric Effect in a Layered $LiNbO_3$-Si Structure - 14, 310 [14, 455]
Kobushkin, A. P. Dual Amplitude for Processes with Participation of Photons - 13, 277 [13, 387]
Kobyzev, V. N. and A. S. Tager. Coherent Microwave Radiation of n-InSb - 13, 433 [13, 607]
and A. S. Tager. Current Instability and Microwave Radiation of n-CdHgTe - 14, 107 [14, 164]
Kocharyan, K. N. and E. G. Rudashevskii. Antiferromagnetic Resonance and Phase Transition in Cobalt Fluoride in a Perpendicular Magnetic Field - 13, 487 [13, 688]
Kocharyan, R. N. (see Aivazyan, G. M.) - 13, 388 [13, 543]
Kochelaev, B. I. (see Al'tshuler, S. A.) - 13, 382 [13, 535]
Kochelap, V. A., V. I. Pipa, V. N. Piskovoi, and V. N. Sokolov. Possibility of Multiply-valued Equilibrium Distribution of the Carriers in Many-valley Semiconductors - 13, 503 [13, 710]
Kodess, B. N. and V. Sh. Shekhtman. Superconductivity and Structure of Compounds Based on Niobium and Vanadium - 14, 225 [14, 338]
Kolomenskii, A. A. (see Gavrilov, V. P.) - 14, 431 [14, 617]
Kolomenskii, E. A. (see Lobashev, V. M.) - 14, 251 [14, 373]
Koloshnikov, V. G. (see Antonov, E. N.) - 14, 15 [14, 23]
Kolosov, V. A. (see Norinskii, L. V.) - 13, 133 [13, 189]
Komissarov, V. M. (see Bunkin, F. V.) - 13, 341 [13, 479]
Komissarov, V. M. Spatial Self-modulation of Light as a Result of Absorption - 14, 43 [14, 64]
Komissarov, V. S. (see Vorob'ev, L. E.) - 13, 98 [13, 140]
Kompaneets, D. A. (see Andreev, A. F.) - 13, 511 [13, 720]
Kompanets, O. N. and V. S. Letokhov. Narrow Molecular Resonances Upon Saturation of Absorption in Separated Light Beams - 14, 12 [14, 20]
Kondratyuk, L. A. and V. B. Kopeliovich. Allowance for the Coulomb Interaction in the Scattering of a Fast Charged Particle by a Nucleus - 13, 123 [13, 176]
Konev, Yu. B. (see Karlov, N. V.) - 14, 117 [14, 178]
Konovalov, V. G. (see Dikii, A. G.) - 14, 245 [14, 366]
Kontorovich, V. M. (see Kats, A. V.) - 14, 265 [14, 392]
Konyukhov, V. K. and A. M. Prokhorov. Feasibility of an Adsorption-gasdynamic Laser - 13, 153 [13, 216]
Kopeliovich, A. I. (see Gurzhi, R. N.) - 13, 406 [13, 569]
Kopeliovich, V. B. (see Kondratyuk, L. A.) - 13, 123 [13, 176]
Kopvillem, U. Kh., B. P. Smolyakov, and R. Z. Sharipov. Polarization Echo in the Ferroelectric Single Crystal KH_2PO_4 - 13, 398 [13, 558]
Kopylov, V. N. and L. P. Mezhov-Deglin. Thermal Conductivity of Bismuth at Low Temperatures - 14, 21 [14, 32]
Koreneva, L. G. (see Davydov, B. L.) - 13, 238 [13, 336]
Kornilov, B. V. (see Zavadskii, Yu. I.) - 14, 407 [14, 585]
Kornilov, E. A. (see Krivoruchko, S. M.) - 13, 262 [13, 369]
Korolev, F. A., V. I. Odintsov, and E. Yu. Sokolova. Excitation of SRS Using a Low-power Laser - 13, 77 [13, 112]
Korolev, V. V. (see Dzhidzhoev, M. S.) - 14, 47 [14, 73]
Koroteev, V. I. (see Altymtsev, A. T.) - 13, 139 [13, 197]
Korotkikh, A. M. and V. M. Nabutovskii. Critical Point of Phase Transitions of First Order but Close to Second Order - 13, 147 [13, 208]
Korshunov, V. V., F. D. Senchukov, and S. Z. Shmurak. Investigation of the Temporal Characteristics of Deformation Luminescence - 13, 289 [13, 408]
Koshelev, E. L. (see Basov, N. G.) - 13, 352 [13, 496]
Kossyi, I. A. Influence of Longitudinal Streams of Charged Particles on the Diffusion of Plasma in a Stellarator - 14, 124 [14, 188]
Kostadinov, I. Z. Asymptotic Behavior of the Electric Conductivity in Disordered Structures - 14, 231 [14, 345]
Kostin, N. N., V. A. Khodovoi, V. V. Khromov, and N. A. Chigir'. Optical Pumping and Dissociation of Rubidium Molecules by a Laser Pulse - 14, 410 [14, 589]
Kostomarov, D. P. (see Dnestrovskii, Yu. N.) - 13, 493 [13, 697]
Kotelyanskii, I. M. (see Ivanov, S. N.) - 13, 201 [13, 283]
Kotov, V. V. (see Pogorelyi, A. N.) - 13, 400 [13, 561]
(see Pogorelyi, A. N.) - 14, 202 [14, 305]
Kotsubanov, V. D. (see Dikii, A. G.) - 14, 245 [14, 366]
Kotyuzhanskii, B. Ya. and L. A. Prozorova. Observation of Magnon-phonon Interaction in Antiferromagnetic $MnCO_3$ - 13, 305 [13, 430]
Kovalev, V. I., V. I. Popovichev, V. V. Ragul'-

skii, and F. S. Faizullov. Single-frequency Brillouin Laser Using Methane - 14, 344 [14, 503]
Kovan, I. A. (see Ivanov, N. V.) - 14, 138 [14, 212]
Kovarskii, V. A. (see Vekhter, B. G.) - 13, 260 [13, 365]
_, N. A. Ferdman, A. V. Simashkevich, and P. A. Gashin. Pulsed Narrowing of p-n Junctions in Two-photon Excitation - 14, 55 [14, 85]
Kovrigin, A. I. and P. V. Nikles. Resonatorless Parametric Light Generator Using an α-HIO_3 Crystal - 13, 313 [13, 440]
Kovrizhnykh, L. Concerning One Possibility of Increasing the Classical Coefficients for Transport Across a Strong Magnetic Field - 13, 365 [13, 513]
Kovsh, I. B. (see Basov, N. G.) - 14, 285 [14, 421]
Kovtun, N. M. (see Doroshev, V. D.) - 13, 475 [13, 672]
_, E. E. Solov'ev, A. A. Shemyakov, and V. A. Khokhlov. Nuclear Magnetic Resonance in Certain Orthoferrites - 14, 68 [14, 105]
_(see Doroshev, V. D.) - 14, 343 [14, 501]
Kozis, E. V. (see Goman'kov, V. I.) - 13, 428 [13, 600]
Kozlov, V. A. and E. L. Nagaev. Anomalies of Thermal Emf in Phonon-phonon Dragging - 13, 455 [13, 639]
Kozorovitskii, L. L. (see Vdovin, V. L.) - 14 149 [14, 228]
_(see Ivanov, A. A.) - 14, 412 [14, 593]
Kraftmakher, G. A., V. V. Meriakri, and A. Ya. Chervonenkis. Domain-wall-connected Natural Resonance at Submillimeter Wavelength in Orthoferrites - 14, 152 [14, 231]
Krainov, V. P. WKB Method for a Strong Coulomb Field - 13, 255 [13, 359]
Kraiskii, A. V. (see Zubov, V. A.) - 13, 316 [13, 443]
Krasko, G. L. Electrostatic Energy of a Disordered Alloy - 13, 155 [13, 218]
Krasovitskii, V. B. (see Bogod, Yu. A.) - 13, 349 [13, 491]
Krasyuk, I. K. (see Kazakov, A. E.) - 14, 280 [14, 416]
Kratskik, B. (see Arl't, R.) - 13, 397 [13, 556]
Kravchenko, V. Ya. (see Babkin, G. I.) - 13, 19 [13, 30]
_(see Babkin, G. I.) - 13, 402 [13, 563]
Kreines, N. M. (see Borovik-Romanov, A. S.) - 13, 54 [13, 80]
Krigel', V. G. (see Aronov, A. G.) - 14, 203 [14, 307]
Krishchian, V. M. (see Avakyan, K. M.) - 14, 239 [14, 357]
Krivoruchko, S. M., A. S. Bakai, and E. A. Kornilov. Mechanism of Excitation and Control of Relaxation Oscillations in a Plasma-beam System - 13, 262 [13, 369]
Krokhin, O. N. (see Afanas'ev, Yu. V.) - 13, 182 [13, 257]
_(see Basov, N. G.) - 13, 489 [13, 691]
Krokhmal', A. P. (see Gorban', I. S.) - 13, 482 [13, 682]
Kromskii, G. I. (see Yanait, Yu. A.) - 13, 438 [13, 616]
Krupnikov, E. S. (see Aliev, F. Yu.) - 13, 480 [13, 679]
Krupskii, N. P. (see Alekhin, A. D.) - 14, 403 [14, 581]
Kryshkin, V. I., A. G. Potashov, A. G. Sterligov, and Yu. P. Usov. Determination of the Radius of Strong Interaction of Pb and the Mean Free Path of the π^0 Meson in Nuclear Matter - 13, 242 [13, 341]
Kryukov, P. G. (see Gvardzhaladze, T. L.) - 13, 111 [13, 159]
Kucherov, I. Ya. (see Zhabitenko, N. K.) - 14, 312 [14, 458]
Kuchma, A. S., V. P. Parfenova, and V. S. Shpinel'. Hyperfine Magnetic Field for Sn^{119} Impurity Atoms in Ferromagnetic Terbium - 13, 135 [13, 192]
Kudryavtsev, A. E. The Mass Spectrum of (Ap) from the Reaction $K^-d \to \pi^-Ap$ - 14, 90 [14, 134]
Kudryavtsev, V. A. and E. M. Levin. Physical States on Daughter Trajectories in the Dual Amplitude Under the Condition $\alpha(0) = 1$ - 13, 360 [13, 507]
Kudryavtsev, V. S. (see Kadomtsev, B. B.) - 13, 9 [13, 15]
_(see Kadomtsev, B. B.) - 13, 42 [13, 61]
Kulik, I. O. Critical Temperature of Amorphous Superconducting Films - 14, 228 [14, 341]
Kunigelis, V. F. (see Samulionis, V. I.) - 13, 207 [13, 291]
Kuraev, E. A. and V. T. Lazurik-El'tsufin. High-energy Asymptotic Cross Sections for the Production of e^+e^- Pairs in Collisions of Heavy Charged Particles - 13, 280 [13, 391]
Kuritsyn, Yu. A. (see Godik, E. E.) - 14, 254 [14, 377]
Kurtmullaev, R. Kh. (see Eselevich, V. G.) - 13, 49 [13, 73]
_(see Altyntsev, A. T.) - 13, 139 [13, 197]
Kutsidi, N. K. (see Budagov, Yu. A.) - 13, 471 [13, 665]
_(see Budagov, Yu. A.) - 14, 243 [14, 363]
Kuz'michev, V. M. (see Tolmachev, A. V.) - 14, 144 [14, 220]
Kuz'min, G. P. (see Bunkin, F. V.) - 13, 341 [13, 479]
Kuz'min, R. N. (see Avenarius, I. A.) - 14, 331 [14, 484]
Kuznetsov, A. A. (see Boldea, V.) - 14, 278 [14, 412]
Kuznetsova, S. V. (see Andreeva, T. L.) - 13, 449 [13, 631]
Kuznetsova, T. I. (see Zubov, V. A.) - 13, 316 [13, 443]

Ladyzhinskii, Yu. P. (see Gershenzon, E. M.) - 14, 256 [14, 380]
Laptev, I. D. (see Rykovskii, Yu. A.) - 14, 157 [14, 238]
Latypov, Z. Z. and A. A. Shaporenko. Interference Effect in the Cross Section for the Charge Exchange of Li^+ Ions with He Atoms - 13, 375 [13, 525]
Lavrov, V. M. (see Afrosimov, V. V.) - 14, 275 [14, 408]
Lazurik-El'tsufin, V. T. (see Kuraev, E. A.) - 13, 280 [13, 391]
(see Akhiezer, I. A.) - 14, 368 [14, 535]
Lebedeva, N. S. (see Morozov, V. M.) - 14, 91 [14, 137]
Ledenev, O. P. (see Shepelev, A. G.) - 14, 290 [14, 428]
Leiderman, A. V. (see Broude, V. L.) - 13, 302 [13, 426]
Lemanov, V. V. and O. V. Shakin. Features of Scattering of Light by Hypersonic Waves in Uniaxial Crystals - 13, 392 [13, 549]
Leonas, V. B. (see Kalinin, A. P.) - 14, 329 [14, 481]
Leonov, R. K. (see Makshantsev, V. I.) - 14, 115 [14, 175]
Leontovich, M. and V. Khait. Possibility of Experimentally Measuring the Electromagnetic Fields Produced in a Metal in Which Transverse Ultrasonic Waves Propagate - 13, 414 [13, 579]
Letokhov, V. S. (see Ambartsumyan, R. V.) - 13, 217 [13, 305]
(see Kompanets, O. N.) - 14, 12 [14, 20]
Levdik, V. A. (see Miron, N. F.) - 13, 485 [13, 686]
(see Golovkin, V. S.) - 14, 257 [14, 382]
Levin, E. M. (see Kudryavtsev, V. A.) - 13, 360 [13, 507]
Levina, V. I. (see Kirillov-Ugryumov, V. G.) - 14, 110 [14, 168]
Lezhnev, I. B. (see Berdyev, A. A.) - 13, 32 [13, 49]
Likhter, Ya. I., O. A. Molchanov, and V. M. Chmyrev. Modulation of Spectrum and Amplitudes of Low-frequency Signal in the Magnetosphere Plasma - 14, 325 [14, 475]
Likhtman, E. P. (see Gol'fand, Yu. A.) - 13, 323 [13, 452]
Lipmanov, E. M. Note on Searches for Intermediate Bosons - 14, 364 [14, 529]
Litvak, A. G. (see Brodskii, Yu. Ya.) - 13, 95 [13, 136]
(see Eremin, B. G.) - 13, 430 [13, 603]
Litvinov, A. P. (see Dikii, A. G.) - 14, 245 [14, 366]
Lobashev, V. M., L. A. Popeko, L. M. Smotritskii, A. P. Serebrov, and E. A. Kolomenskii. Experimental Observation of Rotation of the Plane of Linear Polarization of γ Quanta in Magnetized Ferromagnets - 14, 251 [14, 373]
Lobov, G. A. and T. A. Lomonosova. Soft-pion Theorems and Direct Nuclear Processes - 14, 421 [14, 605]
Logginov, A. S. (see Vyshlov, S. S.) - 13, 90 [13, 131]
Lomakin, Yu. F. (see Budagov, Yu. A.) - 13, 471 [13, 665]
(see Budagov, Yu. A.) - 14, 243 [14, 363]
(see Boldea, V.) - 14, 278 [14, 412]
(see Amaglobeli, N. S.) - 14, 385 [14, 558]
Lomonosova, T. A. (see Lobov, G. A.) - 14, 421 [14, 605]
Lorikyan, M. P. (see Alikhanyan, A. I.) - 13, 142 [13, 201]
Los', E. V. (see Ivanov, N. V.) - 14, 138 [14, 212]
Luchkov, B. I. (see Volobuev, S. A.) - 13, 28 [13, 43]
Lukashin, A. V. (see Ivanov, A. A.) - 14, 283 [14, 419]
L'vov, O. I. and P. P. Pavinskii. Biexciton in Cu_2O Crystal - 14, 167 [14, 253]
L'vov, V. S. (see Zaushkin, V. V.) - 14, 206 [14, 310]
L'vova, E. Yu. (see Fok, M. V.) - 13, 245 [13, 346]
Lyapunov, I. A. (see Salanskii, N. M.) - 13, 491 [13, 694]
Lyn'ko, L. V. (see Veselago, V. G.) - 13, 247 [13, 349]
Magda, I. I. (see Gadetskii, N. P.) - 14, 101 [14, 155]
Malstrenko, V. I. (see Solomko, A. A.) - 14, 23 [14, 36]
Makar'ina, L. A. (see Barkov, L. M.) - 14, 60 [14, 93]
Makarov, E. F. (see Aivazyan, G. M.) - 13, 388 [13, 543]
Makshantsev, V. I., R. K. Leonov, and P. A. Yampol'skii. Destruction of Transparent Dielectrics by Laser Radiation - 14, 115 [14, 175]
Maksimenko, V. A. (see Budagov, Yu. A.) - 13, 471 [13, 665]
Maksimenko, V. M. (see Bugai, A. A.) - 13, 380 [13, 533]
Mal'tsev, E. I. (see Goman'kov, V. I.) - 13, 428 [13, 600]
Mal'tsev, V. K. (see Salanskii, N. M.) - 13, 491 [13, 694]
Malyshev, V. I., A. A. Sychev, and V. A. Babenko. Investigation of the Character of the Emission of a Neodymium-glass Laser with a Passive Shutter Having a Finite Relaxation Time - 13, 419 [13, 588]
(see Babenko, V. A.) - 14, 314 [14, 461]
Malyshev, Yu. M., V. M. Tatarenkov, and A. N. Titov. Optical Frequency Standard with a Beam Type Absorbing Cell - 13, 422 [13, 592]
Malyutin, A. I. (see Eselevich, V. G.) - 13, 49 [13, 73]

Mandel'tsveig, V. B. (see Dal'karov, O. D.) - 14, 87 [14, 131]
(see Dal'karov, O. D.) - 14, 127 [14, 191]
Mansfel'd, G. D. (see Ivanov, S. N.) - 13, 201 [13, 283]
Marchenko, V. M. and A. M. Prokhorov. Possibility of Producing an Inverted Medium for Lasers by Means of an Explosion - 14, 76 [14, 116]
Markin, E. P. (see Afanas'ev, Yu. V.) - 13, 331 [13, 462]
(see Basov, N. G.) - 13, 352 [13, 496]
(see Basov, N. G.) - 14, 165 [14, 251]
Markov, B. N. (see Gangrskii, Yu. P.) - 14, 249 [14, 370]
Markov, V. N. (see Dzhidzhoev, M. S.) - 14, 47 [14, 73]
Martem'yanov, V. P. (see Barkov, L. M.) - 14, 60 [14, 93]
Martinska, G. (see Budagov, Yu. A.) - 13, 471 [13, 665]
(see Budagov, Yu. A.) - 14, 243 [14, 363]
(see Boldea, V.) - 14, 278 [14, 412]
(see Amaglobeli, N. S.) - 14, 385 [14, 558]
Masalov, V. L. (see Altyntsev, A. T.) - 13, 139 [13, 197]
Mash, L. D., B. M. Rabkin, and B. V. Rybakov. Investigation of the Cataphoresis Effect in a Cadmium-vapor Laser - 13, 169 [13, 240]
Mashovets, T. V. (see Emtsev, V. V.) - 13, 478 [13, 675]
(see Gershenzon, E. M.) - 14, 241 [14, 360]
Maslov, A. I. (see Andreeva, T. L.) - 13, 449 [13, 631]
Matevosyan, E. M. (see Avakyan, K. M.) - 14, 239 [14, 357]
Mazets, E. P. (see Golenetskii, S. V.) - 14, 131 [14, 201]
Medved', A. V. (see Kmita, A. M.) - 14, 310 [14, 455]
Medvedev, A. A. (see Kaitmazov, S. D.) - 14, 208 [14, 314]
Medvedev, E. S. Luminescence of the Local Center of a Crystal in the Presence of Uniaxial Deformation - 13, 39 [13, 59]
Meledin, G. V., V. G. Serbo, and A. K. Slivkov. Formation of Positronium Upon Collision of Fast Particles and Its Decay - 13, 68 [13, 98]
Meleshina, V. A. (see Chizhikov, S. I.) - 14, 336 [14, 490]
Meleshko, E. A. (see Gurevich, I. I.) - 14, 297 [14, 436]
Melioranskii, A. S. (see Bratolyubova-Tsulukidze, L. S.) - 13, 404 [13, 566]
Mel'nik, V. L. (see Naberezhnykh, V. P.) - 13, 105 [13, 150]
Mel'nikov, A. P. (see Gershenzon, E. M.) - 14, 185 [14, 281]
(see Gershenzon, E. M.) - 14, 256 [14, 380]
Mel'nikov, V. I., E. I. Rashba, and V. M. Edelshtein. Role of Exciton-phonon Complexes in the Interband Magnetooptical Anomaly - 13, 192 [13, 269]
Mel'nikova, N. N. (see Boldea, V.) - 14, 278 [14, 412]
Menskii, M. V. (see Braginskii, V. B.) - 13, 417 [13, 585]
Meriakri, V. V. (see Kraftmakher, G. A.) - 14, 152 [14, 231]
Mesyats, G. A. and D. I. Proskurovskii. Explosive Emission of Electrons from Metallic Needles - 13, 4 [13, 7]
Mezhov-Deglin, L. P. (see Kopylov, V. N.) - 14, 21 [14, 32]
Mezrin, O. A. (see Gurevich, L. E.) - 14, 387 [14, 562]
Mikhailovskii, I. M. (see Dranova, Zh. I.) - 13, 27 [13, 40]
Mikhul, A. (see Boldea, V.) - 14, 278 [14, 412]
Miloshenko, V. E. (see Postnikov, V. S.) - 13, 6 [13, 10]
Mil'shtein, S. Kh. and V. I. Nikitenko. Investigation of Local Changes of the Electric Properties of Silicon Under the Influence of Individual Dislocations - 13, 233 [13, 329]
Mints, R. G. (see Azbel', M. Ya.) - 13, 60 [13, 89]
Mirnov, V. V. (see Budker, G. I.) - 14, 212 [14, 320]
Miron, N. F., V. I. Shcherbak, L. E. Fykin, V. N. Rykov, V. A. Levdik, and S. P. Solov'ev. Direct Observation of Fluctuations of Deuterium Distribution in $(Nb_{0.33}Ti_{0.66})D_{0.33}$ - 13, 485 [13, 686]
Miselyuk, E. G. (see Zhabitenko, N. K.) - 14, 312 [14, 458]
Mishakova, A. P. (see Barkov, L. M.) - 14, 60 [14, 93]
Mitin, V. V. (see Gribnikov, Z. S.) - 14, 182 [14, 272]
Mitsel'makher, G. V. (see Bardin, D. Yu.) - 13, 273 [13, 383]
Mkrtchyan, A. R. (see Aivazyan, G. M.) - 13, 388 [13, 543]
Mochan, I. V. (see Zemskii, V. I.) - 13, 344 [13, 483]
Moiseev, S. S. (see Berezin, A. K.) - 14, 97 [14, 149]
Molchanov, O. A. (see Likhter, Ya. I.) - 14, 325 [14, 475]
Molin, V. N., V. I. Petrosyan, P. A. Skripkina, B. A. Tavger, E. I. Dagman, and M. D. Blokh. Quantum Size-effect Semimetal-semiconductor Transition in Ultrathin Bismuth Films - 14, 215 [14, 323]
Monosov, Ya. A. (see Zubkov, V. I.) - 13, 161 [13, 229]
Morozov, V. M., Yu. G. Zubov, and N. S. Lebedeva. Scattering of Neutrons by Nuclei in the Region of Non-overlapping Resonances of the Nucleus - 14, 91 [14, 137]
Mostovoi, Yu. A. (see Erozolimskii, B. G.) - 13, 252 [13, 356]

Mukhamadzhanov, M. (see Askar'yan, G. A.) - 14, 308 [14, 452]
Mukhortov, Yu. P. (see Pustovoit, V. I.) - 13, 149 [13, 211]
Muratova, I. A. (see Gurevich, I. I.) - 14, 297 [14, 436]
Murphy, E. G. (see Chuyanov, V. A.) - 13, 395 [13, 553]
Musher, S. L. (see Zaushkin, V. V.) - 14, 206 [14, 310]
Naberezhnykh, V. P., D. E. Zherebchevskii, and V. L. Mel'nik. Electromagnetic Waves Near Hole Cyclotron Resonance in Bismuth - 13, 105 [13, 150]
Nabutovskii, V. M. (see Korotkikh, A. M.) - 13, 147 [13, 208]
Nadgornyi, E. M. (see Ermakov, G. A.) - 14, 29 [14, 45]
Nagaev, E. L. (see Kozlov, V. A.) - 13, 455 [13, 639]
Naida, A. P. (see Gabovich, M. D.) - 14, 1 [14, 3]
Nedorezov, S. S. Surface Magnetic Susceptibility of Metals - 14, 415 [14, 597]
Neporent, B. S. (see Klochkov, V. P.) - 13, 31 [13, 47]
Nevolin, V. N. (see Rykovskii, Yu. A.) - 14, 157 [14, 238]
Nikitenko, A. G. (see Atutov, S. N.) - 13, 163 [13, 232]
Nikitenko, V. I. (see Mil'shtein, S. Kh.) - 13, 233 [13, 329]
Nikles, P. V. (see Kovrigin, A. I.) - 13, 313 [13, 440]
Nikogosyan, D. N. (see Antonov, E. N.) - 14, 15 [14, 23]
Nikolaev, B. I. (see Borman, V. D.) - 13, 221 [13, 311]
Nikolaev, E. N. (see Tantsyrev, G. D.) - 13, 337 [13, 473]
Nikolaev, V. I. (see Gamlitskii, V. Ya.) - 13, 88 [13, 129]
_, F. I. Popov, and S. S. Yakimov. Relaxation Phenomena in Ferrites of the System $NiFe_{2-x}Cr_xO_4$ - 13, 100 [13, 143]
_ (see Gordienko, V. A.) - 14, 3 [14, 6]
_, F. I. Popov, S. S. Yakimov, A. N. Goryaga, and T. Ya. Gridasova. Relaxation and Noncollinearity of the Spins of Iron in the Ferrite $Li_{0.5}Fe_{1.7}Al_{0.8}O_4$ - 14, 135 [14, 208]
Nikol'skii, B. A. (see Gurevich, I. I.) - 14, 297 [14, 436]
Nizhankovskii, V. I. (see Alekseevskii, N. E.) - 14, 169 [14, 256]
Nolle, E. L. (see Voron'ko, Yu. K.) - 13, 86 [13, 125]
Norinskii, L. V. and V. A. Kolosov. Effective Generation of Powerful Coherent Ultraviolet Radiation - 13, 133 [13, 189]
_ (see Eremin, V. I.) - 13, 307 [13, 433]
Novgorodov, A. F. (see Arl't, R.) - 13, 397 [13, 556]
Novikov, G. V. (see Ovanesyan, N. S.) - 13, 347 [13, 488]
Novikov, Yu. N. (see Karimov, Yu. S.) - 14, 142 [14, 217]
Obinyakov, B. A. (see Erozolimskii, B. G.) - 13, 252 [13, 356]
Odinets, G. Yu. (see Ovanesyan, N. S.) - 13, 347 [13, 488]
Odintsov, V. I. (see Korolev, F. A.) - 13, 77 [13, 112]
Ogurtsov, G. N. (see Afrosimov, V. V.) - 14, 275 [14, 408]
Ogurtsov, V. I. (see Bydin, Yu. F.) - 13, 240 [13, 340]
Ogurtsov, V. V. (see Barkov, L. M.) - 14, 60 [14, 93]
Okorokov, A. I. (see Drabkin, G. M.) - 13, 1 [13, 3]
Okunevich, A. I. (see Gutner, A. B.) - 13, 298 [13, 420]
Omelaenko, A. S. Electroproduction of Pions by Polarized Electrons on Polarized Protons - 14, 268 [14, 395]
Onishchenko, A. M. (see Bilak, V. I.) - 14, 199 [14, 301]
Opalenko, A. A. (see Avenarius, I. A.) - 14, 331 [14, 484]
Oparin, V. A., R. N. Il'in, I. T. Serenkov, E. S. Solov'ev, and N. V. Fedorenko. Direct Proof of the Existence of an Excited Negative C^- Ion and the Determination of the Binding Energy of the Electron in It - 13, 249 [13, 351]
Oraevskii, A. N. (see Basov, N. G.) - 13, 352 [13, 496]
_ (see Basov, N. G.) - 14, 165 [14, 251]
Orlov, A. F. Superconducting Transition Temperature of a Metastable Mixture Based on Nontransition Metals - 14, 339 [14, 496]
Osiko, V. V. (see Voron'ko, Yu. K.) - 13, 86 [13, 125]
Osip'yan, Yu. A., V. F. Petrenko, and I. B. Savchenko. Infrared Quenching of the Photoplastic Effect in Cadmium Sulfide - 13, 442 [13, 622]
Ostrovskii, B. I. (see Chizhikov, S. I.) - 14, 336 [14, 490]
Ostrovskii, L. I. (see Yanson, I. K.) - 14, 26 [14, 40]
Ovanesyan, N. S., V. A. Trukhtanov, G. Yu. Odinets, G. V. Novikov, and L. Cser. Temperature Reorientation of the Spins in Natural Pyrrhotine $Fe_{0.888}$ - 13, 347 [13, 488]
Ovchinnikov, A. A. (see Zel'dovich, Ya. B.) - 13, 452 [13, 636]
Ovsyankin, V. V. and P. P. Feofilov. Two-quantum Cooperative Frequency Conversion of Weak Light Fluxes - 14, 377 [14, 548]
Ozerov, Yu. V. (see Volobuev, S. A.) - 13, 28 [13, 43]

Pankratov, A. V. (see Basov, N. G.) - 14, 165 [14, 251]
Paperno, I. M. (see Andronikashvili, E. L.) - 13, 310 [13, 436]
Parail, V. V. (see Vdovin, V. L.) - 14, 149 [14, 228]
Parfenova, V. P. (see Kuchma, A. S.) - 13, 135 [13, 192]
Pashinin, P. P. (see Kazakov, A. E.) - 14, 280 [14, 416]
Patashinskii, A. Z. Contribution to the Theory of Strong Interactions at High Energies - 13, 63 [13, 92]
Pavinskii, P. P. (see L'vov, O. I.) - 14, 167 [14, 253]
Pavlichenko, O. S. (see Dikii, A. G.) - 14, 245 [14, 366]
Pavlova, N. L. (see Dnestrovskii, Yu. N.) - 13, 493 [13, 697]
Pekar, S. I. (see Zhabitenko, N. K.) - 14, 312 [14, 458]
Peker, L. K. (see Gol'danskii, V. I.) - 13, 412 [13, 577]
Perel', V. I. (see D'yakonov, M. I.) - 13, 144 [13, 206]
(see Gross, E. F.) - 13, 229 [13, 320]
(see D'yakonov, M. I.) - 13, 467 [13, 657]
Perepelkin, N. F. (see Dikii, A. G.) - 14, 245 [14, 366]
Permogorov, V. I. (see Ivanov, A. A.) - 14, 283 [14, 419]
Perov, A. P. (see Gaidukov, Yu. P.) - 13, 219 [13, 307]
Petrenko, V. F. (see Osip'yan, Yu. A.) - 13, 442 [13, 622]
Petrenko, V. V. (see Borshkovskii, I. A.) - 13, 390 [13, 546]
Petrosyan, V. I. (see Molin, V. N.) - 14, 215 [14, 323]
Petrov, A. A., M. P. Petrov, G. A. Smolenskii, and P. P. Syrnikov. Nuclear Spin Echo in the Antiferromagnet $RbMnF_3$ - 14, 353 [14, 514]
Petrov, M. I. (see Bayukov, O. A.) - 14, 32 [14, 49]
Petrov, M. P. (see Petrov, A. A.) - 14, 353 [14, 514]
Petrov, V. I. (see Zhdan, A. G.) - 14, 105 [14, 161]
Petrov, Yu. N. (see Karlov, N. V.) - 14, 140 [14, 214]
Pil'shchikov, A. I. and N. E. Syr'ev. Features of the Resonance of Domain-boundary Displacement in a Disk - 14, 159 [14, 242]
Pipa, V. I. (see Kochelap, V. A.) - 13, 503 [13, 710]
Piskovoi, V. N. (see Kochelap, V. A.) - 13, 503 [13, 710]
Platonenko, V. G. (see Dzhidzhoev, M. S.) - 14, 47 [14, 73]
Pogorelyi, A. N. and V. V. Kotov. Temperature Dependence of the Intensity of NMR of Hexagonal Cobalt - 13, 400 [13, 561]
and V. V. Kotov. Observation of Bound Electron-nuclear Oscillations in Ferromagnetic Films - 14, 202 [14, 305]
Pokhotelov, O. A. (see Bud'ko, N. I.) - 14, 320 [14, 469]
Pokrovskii, Ya. E. and K. I. Svistunova. Light Scattering by Drops of the Condensed Phase of Nonequilibrium Carriers in Germanium - 13, 212 [13, 297]
Politov, N. G. (see Andronikashvili, E. L.) - 13, 310 [13, 436]
Poluektov, I. A. (see Afanas'ev, Yu. V.) - 13, 182 [13, 257]
(see Afanas'ev, Yu. V.) - 13, 331 [13, 462]
Ponomarenko, N. P. (see Dikii, A. G.) - 14, 245 [14, 366]
Ponomarev, A. N. (see Shatrov, V. D.) - 13, 243 [13, 344]
Ponosov, A. K. (see Kirillov-Ugryumov, V. G.) - 14, 110 [14, 168]
Ponta, T. (see Boldea, V.) - 14, 278 [14, 412]
Pontecorvo, B. Heavy Leptons and Neutrino Astronomy - 13, 199 [13, 281]
Popeko, L. A. (see Lobashev, V. M.) - 14, 251 [14, 373]
Popov, F. I. (see Nikolaev, V. I.) - 13, 100 [13, 143]
(see Nikolaev, V. I.) - 14, 135 [14, 208]
Popov, V. S. Production of e^+e^- Pairs in an Alternating External Field - 13, 195 [13, 261]
and T. I. Rozhdestvenskaya. Critical Charge in Collisions of Nuclei - 14, 177 [14, 267]
Popovichev, V. I. (see Kovalev, V. I.) - 14, 344 [14, 503]
Porodinkov, O. E. (see Gonchukov, S. A.) - 14, 155 [14, 235]
Postnikov, V. S., I. V. Zolotukhin, and V. E. Miloshenko. Influence of Superconducting Transition on the Internal Friction of Tantalum - 13, 6 [13, 10]
Potashov, A. G. (see Kryshkin, V. I.) - 13, 242 [13, 341]
Presnyakov, L. P. and V. P. Shevel'ko. Possibility of Producing Inverted Population in Atomic Beams by Charge Exchange of Protons with Atoms - 13, 203 [13, 286]
Prilutskii, O. F. (see Bratolyubova-Tsulukidze, L. S. - 13, 404 [13, 566]
Pritchard, A. M. (see Aleksandrov, A. Yu.) - 13, 8 [13, 13]
Privorotskii, I. A. Planar Model of a Branched Domain Structure of a Cubic Ferromagnet - 13, 158 [13, 222]
Theory of Nucleus Formation in Phase Transitions in Magnetic Fields - 14, 429 [14, 613]
Prokhorov, A. M. (see Konyukov, V. K.) - 13, 153 [13, 216]
(see Marchenko, V. M.) - 14, 76 [14, 116]
(see Karlov, N. V.) - 14, 117 [14, 178]
(see Karlov, N. V.) - 14, 140 [14, 214]
(see Kaitmazov, S. D.) - 14, 208 [14, 314]

(see Kazakov, A. E.) - 14, 280 [14, 416]
Prokhorov, V. S. (see Fedoseev, D. V.) - 14, 51 [14, 80]
Proskurovskii, D. I. (see Mesyats, G. A.) - 13, 4 [13, 7]
Protasov, V. P. (see Kirillov-Ugryumov, V. G.) - 14, 110 [14, 168]
Protogenov, A. P. and V. Ya. Demikhovskii. Electromagnetic Excitation with Polarization Opposite to the Helicon in an Uncompensated Magnetoactive Plasma - 14, 356 [14, 518]
Protsenko, E. D. (see Gonchukov, S. A.) - 14, 155 [14, 235]
Prozorova, L. A. (see Kotyuzhanskii, B. Ya.) - 13, 305 [13, 430]
Pryadein, V. A. (see Eremin, V. I.) - 13, 307 [13, 433]
Pryakhin, E. A. (see Bratolyubova-Tsulukidze, L. S.) - 13, 404 [13, 566]
Przhonskaya, O. V. (see Dyadusha, G. G.) - 14, 220 [14, 330]
Ptitsyna, N. G. (see Gershenzon, E. M.) - 14, 241 [14, 360]
Pukhlii, Zh. A. (see Vlasenko, N. A.) - 14, 306 [14, 449]
Puretskii, A. A. (see Ivanov, A. A.) - 14, 283 [14, 419]
Pustovalov, V. V. (see Vinogradov, A. V.) - 13, 226 [13, 317]
and V. P. Silin. Fast Particles in a Parametrically Unstable Plasma - 14, 299 [14, 439]
Pustovoit, V. I. and Yu. P. Mukhortov. Hall Effect in Semiconductors in a Strong Electric Field - 13, 149 [13, 211]
Puzei, I. M. (see Goman'kov, V. I.) - 13, 428 [13, 600]
Rabinovich, M. S. (see Andryukhina, E. D.) - 14, 210 [14, 317]
Rabkin, B. M. (see Mash, L. D.) - 13, 169 [13, 240]
Radutskii, G. M. and V. A. Serdyutskii. Pion Photoproduction of Nucleon Near Threshold and the Contribution for Vector-meson Exchange - 13, 205 [13, 288]
Ragul'skii, V. V. (see Kovalev, V. I.) - 14, 344 [14, 503]
Rakhimbabaev, Ya. R. (see Vdovin, V. L.) - 14, 149 [14, 228]
Rakov, Yu. A. and V. A. Tsarev. The Reaction $\gamma p \to \pi p$ and the Dip Mechanism in Photoproduction - 14, 362 [14, 526]
Rashba, E. I. (see Mel'nikov, V. I.) - 13, 192 [13, 269]
Ratner, B. S. Near-threshold Singularities of the Yield of Direct Photonuclear Reactions - 13, 447 [13, 628]
Rau, E. I. (see Zhdan, A. G.) - 14, 105 [14, 161]
Rautian, S. G. (see Atutov, S. N.) - 13, 163 [13, 232]
Razbirin, B. S. (see Gross, E. F.) - 14, 70 [14, 108]
Razmadze, A. K. (see Andronikashvili, E. L.) - 13, 310 [13, 436]
Razumova, K. A. (see Bobrovskii, G. A.) - 14, 99 [14, 153]
Rekalo, M. P. (see Akhiezer, A. I.) - 14, 119 [14, 181]
Remizovich, V. S. (see Kalashnikov, N. P.) - 13, 508 [13, 715]
Rivlin, L. A. Collective Effects in Discretely-electronic Beams - 13, 257 [13, 362]
Rogachev, A. A. (see Asnin, V. M.) - 14, 338 [14, 494]
Roganov, V. S. (see Gurevich, I. I.) - 14, 297 [14, 436]
Roinishvili, N. N. and E. N. Sherrer. Correlation Between the Transverse and Longitudinal Momenta in Multiple Generation - 13, 171 [13, 243]
Roitburd, A. L. Self-diffusion Phase Transformations - 13, 66 [13, 95]
Romanov, V. A., I. P. Zhad'ko, B. K. Serdega, and L. V. Svyatogor. Photoconductivity of Germanium in a High-frequency Electric Field - 14, 5 [14, 9]
Rosinskii, S. E., A. A. Rukhadze, and V. G. Rukhlin. Mechanism of Acceleration of Ions on the Front of Ionization of a Gas by a Relativistic Electron Beam - 14, 34 [14, 53]
Rozenfel'd, Yu. B. (see Vekhter, B. G.) - 13, 260 [13, 365]
Rozhdestvenskaya, T. I. (see Popov, V. [illegible].) - 14, 177 [14, 267]
Rudashevskii, E. G. (see Kocharyan, K. N.) - 13, 487 [13, 688]
Rukhadze, A. A. (see Bogdankevich, O. V.) - 13, 369 [13, 517]
(see Rosinskii, S. E.) - 14, 34 [14, 53]
Rukhlin, V. G. (see Rosinskii, S. E.) - 14, 34 [14, 53]
Rusanov, I. B. (see Zakharchenya, B. P.) - 13, 137 [13, 195]
Rusanov, V. D. (see Vdovin, V. L.) - 14, 149 [14, 228]
(see Ivanov, A. A.) - 14, 412 [14, 593]
Ryazanov, M. I. (see Kalashnikov, N. P.) - 13, 508 [13, 715]
Rybakov, B. V. (see Mash, L. D.) - 13, 169 [13, 240]
Ryutov, D. D. (see Budker, G. I.) - 14, 212 [14, 320]
Ryvkin, S. M. (see Gershenzon, E. M.) - 14, 241 [14, 360]
Safarov, V. I. (see Garbuzov, D. Z.) - 13, 24 [13, 36]
(see Ekimov, A. I.) - 13, 177 [13, 251]
(see Gross, E. F.) - 13, 235 [13, 332]
(see Ekimov, A. I.) - 13, 495 [13, 700]
(see Gross, E. F.) - 14, 70 [14, 108]

Sagdeev, R. Z. (see Galeev, A. A.) - 13, 113 [13, 162]
(see Ivanov, A. A.) - 14, 412 [14, 593]
Sakhonchik, Yu. A. (see Brodskii, Yu. Ya.) - 13, 95 [13, 136]
Salanskii, N. M., I. A. Lyapunov, and V. K. Mal'tsev. Population Inversion of the Levels of the Nuclear Magnetic System of Thin-film Co^{59} Following Pulsed Magnetization Reversal - 13, 491 [13, 694]
Salukvadze, R. G. (see Amaglobeli, N. S.) - 14, 385 [14, 558]
Samoilovich, M. I., G. N. Bezrukov, and V. P. Butuzov. Electron Paramagnetic Resonance of Nickel in Synthetic Diamond - 14, 379 [14, 551]
Samokhina, M. A. (see Davydov, B. L.) - 13, 238 [13, 336]
Samulionis, V. I. and V. F. Kunigelis. Anomalous Absorption of Sound Near the Ferroelectric Phase Transition - 13, 207 [13, 291]
Sandor, L. (see Budagov, Yu. A.) - 13, 471 [13, 665]
(see Budagov, Yu. A.) - 14, 243 [14, 363]
(see Boldea, V.) - 14, 278 [14, 412]
(see Amaglobeli, N. S.) - 14, 385 [14, 558]
San'ko, L. A. (see Takibaev, Zh. S.) - 13, 83 [13, 122]
Sapa, E. T. (see Gandel'man, I. L.) - 14, 53 [14, 82]
Saprykin, E. G. (see Atutov, S. N.) - 13, 163 [13, 232]
Sarbei, O. G. (see Asche, M.) - 13, 285 [13, 401]
Sarkisyan, K. A. (see Batanov, G. M.) - 13, 384 [13, 539]
Savchenko, I. B. (see Osip'yan, Yu. A.) - 13, 442 [13, 622]
Savenko, I. A. (see Bratolyubova-Tsulukidze, L. S.) - 13, 404 [13, 566]
Savenko, V. I. (see Zagoruiko, N. V.) - 14, 186 [14, 283]
Schreiber, J. and K. Handrich. Curie Temperature and Susceptibility of an Amorphous Heisenberg Ferromagnet (High-temperature Expansion) - 14, 37 [14, 57]
Sedov, V. L. Antiferromagnetism in Invar Alloys - 14, 341 [14, 499]
Seleznev, V. N. (see Doroshev, V. D.) - 13, 475 [13, 672]
(see Bayukov, O. A.) - 14, 32 [14, 49]
Selivanov, V. I. (see Gurevich, I. I.) - 14, 297 [14, 436]
Semchishen, V. A. (see Gonchukov, S. A.) - 14, 155 [14, 235]
Semenov, V. N. (see Altyntsev, A. T.) - 13, 139 [13, 197]
Semiz, D. M. Damping of High-frequency Sound in a Fermi-Bose Liquid - 13, 328 [13, 459]
Excitation of Sound in a Fermi-Bose Liquid - 14, 371 [14, 538]
Senatorov, K. Ya. (see Vyshlov, S. S.) - 13, 90 [13, 131]
Senchukov, F. D. (see Korshunov, V. V.) - 13, 289 [13, 408]
Serbo, V. G. (see Meledin, G. V.) - 13, 68 [13, 98]
Serdega, B. K. (see Romanov, V. A.) - 14, 5 [14, 9]
Serdyutskii, V. A. (see Radutskii, G. M.) - 13, 205 [13, 288]
Serebrov, A. P. (see Lobashev, V. M.) - 14, 251 [14, 373]
Serenkov, I. T. (see Oparin, V. A.) - 13, 249 [13, 351]
Sergeev, F. M. (see Kirillov-Ugryumov, V. G.) - 14, 110 [14, 168]
Sergeichev, K. F. and V. E. Trofimov. Anomalous Dissipation of Microwave Energy in a Collisionless Plasma - 13, 166 [13, 236]
Sever, G. A. (see Baranskii, K. N.) - 13, 34 [13, 52]
Severa, F. (see Arl't, R.) - 13, 397 [13, 556]
Severin, N. F. (see Titov, Yu. I.) - 14, 288 [14, 426]
Shakin, O. V. (see Lemanov, V. V.) - 13, 392 [13, 549]
Shantarovich, V. P. (see Buchikhin, A. P.) - 13, 444 [13, 624]
Shapiro, I. S. (see Dal'karov, O. D.) - 14, 127 [14, 191]
Shapkin, V. V. (see Zavoiskii, E. K.) - 13, 12 [13, 19]
Shaporenko, A. A. (see Latypov, Z. Z.) - 13, 375 [13, 525]
Shapovalov, D. S. (see Basov, N. G.) - 13, 352 [13, 496]
Sharipov, R. Z. (see Kopvillem, U. Kh.) - 13, 398 [13, 558]
Shatberashvili, O. B. (see Gvardzhaladze, T. L.) - 13, 111 [13, 159]
Shatrov, V. D., E. B. Gordon, A. N. Ponomarev, and V. L. Tal'roze. Luminescence of Solid Organic Dyes Bombarded by Thermal Hydrogen Atoms - 13, 243 [13, 344]
Shchebetov, A. F. (see Drabkin, G. M.) - 13, 1 [13, 3]
Shcheglov, V. A. (see Basov, N. G.) - 13, 352 [13, 496]
Shcheglov, V. I. (see Zubkov, V. I.) - 13, 161 [13, 229]
Shchegolev, I. F. (see Berenblyum, A. S.) - 13, 440 [13, 619]
Shchekochikhina, V. V. (see Bykov, A. M.) - 13, 21 [13, 33]
Shcherbak, V. I. (see Miron, N. F.) - 13, 485 [13, 686]
Shekhmamet'ev, R. I. (see Gross, E. F.) - 13, 229 [13, 320]
(see Gross, E. F.) - 13, 357 [13, 503]
Shekhtman, V. S. (see Kodess, B. N.) - 14, 225 [14, 338]

Shemyakov, A. A. (see Kovtun, N. M.) - 14, 68 [14, 105]
(see Doroshev, V. D.) - 14, 343 [14, 501]
Shepelev, A. G., O. P. Ledenev, and G. D. Filimonov. New Effects in the Absorption of Ultrasound in the Intermediate State of a Very Pure Superconductor - 14, 290 [14, 428]
Sherrer, E. N. (see Roinishvili, N. N.) - 13, 171 [13, 243]
Shevchenko, S. I. Cold Electrons in Semiconductors - 13, 187 [13, 264]
Shevel'ko, V. P. (see Presnyakov, L. P.) - 13, 203 [13, 286]
Shikhlyarov, K. K. (see Alikhanyan, A. I.) - 13, 142 [13, 201]
Shikin, V. B. Diffusion Mobility of Negative Ions in Solid Helium - 13, 44 [13, 65]
Shil'shtein, S. Sh., V. A. Somenkov, and V. P. Dokashenko. Suppression of (n, γ) Reaction in Resonant Scattering of Neutrons by a Perfect CdS Crystal - 13, 214 [13, 301]
Shilyaev, B. A., N. A. Shlyakhov, V. Ya. Golovnya, and A. P. Klyucharev. Nucleon Distribution in the Nuclei $Cr^{50, 52, 54}$, $Fe^{54,56}$ and $Ni^{58, 60, 62, 64}$ - 13, 473 [13, 668]
Shklovskii, B. I., A. L. Efros, and I. Ya. Yanchev. Activation Energy of Jump Conductivity - 14, 233 [14, 348]
Forbidden Optical and Electrical Bands of an Amorphous Semiconductor - 14, 269 [14, 397]
Shklyarevskii, O. I. (see Yanson, I. K.) - 14, 26 [14, 40]
Shlimak, I. S. and V. V. Emtsev. Activation Conductivity of Almost Fully Compensated n-Germanium - 13, 107 [13, 153]
(see Gross, E. F.) - 13, 235 [13, 332]
Shlyakhov, N. A. (see Shilyaev, B. A.) - 13, 473 [13, 668]
Shlyapnikov, P. V. (see Boldea, V.) - 14, 278 [14, 412]
Shmurak, S. Z. (see Korshunov, V. V.) - 13, 289 [13, 408]
Sholin, G. V. (see Zavoiskii, E. K.) - 13, 12 [13, 19]
Shpak, M. T. (see Gandel'man, I. L.) - 14, 53 [14, 82]
(see Dyadyusha, G. G.) - 14, 220 [14, 330]
Shpigel', I. S. (see Andryukhina, E. D.) - 14, 210 [14, 317]
Shpinel', V. S. (see Kuchma, A. S.) - 13, 135 [13, 192]
Shukhman, V. A. and L. M. Kano. Resistive Phenomena in the Intermediate State - 13, 197 [13, 277]
Shul'ga, N. F. (see Akhiezer, A. I.) - 13, 506 [13, 713]
Shulov, O. S. (see Gnedin, Yu. N.) - 14, 348 [14, 507]
Shumeiko, N. M. (see Bardin, D. Yu.) - 13, 273 [13, 383]
Shumilov, E. N. (see Sukhorukov, A. P.) - 14, 161 [14, 245]
Shuryak, E. V. Production of Muon Pairs with Large Invariant Masses in Hadron Collisions - 13, 465 [13, 653]
Shutilov, V. A. (see Antokol'skii, G. L.) - 13, 286 [13, 404]
Sidorenko, F. A. (see Dubovtsev, I. A.) - 14, 134 [14, 205
Sidorov, V. I. (see Berman, I. V.) - 14, 11 [14, 18]
Sigaev, V. N. (see Goman'kov, V. I.) - 13, 428 [13, 600]
Silin, V. A. (see Batanov, G. M.) - 14, 303 [14, 445]
Silin, V. P. (see Eleonskii, V. M.) - 13, 117 [13, 167]
(see Alodzhants, G. P.) - 14, 236 [14, 351]
(see Pustovalov, V. V.) - 14, 299 [14, 439]
Simashkevich, A. V. (see Kovarskii, V. A.) - 14, 55 [14, 85]
Simonov, A. P. (see Yanait, Yu. A.) - 13, 438 [13, 616]
Simonov, N. F. (see Gamlitskii, V. Ya.) - 13, 88 [13, 129]
Sinis, V. P. (see Godik, E. E.) - 14, 254 [14, 377]
Sirazetdinov, V. S. (see Bydin, Yu. F.) - 13, 240 [13, 340]
Siryuk, V. M. (see Doroshev, V. D.) - 13, 475 [13, 672]
Skachkov, A. N. (see Basov, N. G.) - 14, 165 [14, 251]
Sklizkov, G. V. (see Basov, N. G.) - 13, 489 [13, 691]
Skobelev, V. V. (see Gal'tsov, D. V.) - 13, 122 [13, 173]
Skoryupin, V. A. (see Zavoiskii, E. K.) - 13, 12 [13, 19]
Skripkina, P. A. (see Molin, V. N.) - 14, 215 [14, 323]
Slezov, V. V. (see Gadetskii, N. P.) - 14, 101 [14, 155]
Slivkov, A. K. (see Meledin, G. V.) - 13, 68 [13, 98]
Slutskin, A. A. and S. A. Sokolov. Magnetic Breakdown Giant Oscillations of Absorption of Sound by Metals - 14, 40 [14, 60]
Smirnov, V. A. (see Bykov, A. M.) - 13, 21 [13, 33]
Smirnova, A. D. (see Andryukhina, E. D.) - 14, 210 [14, 317]
Smolenskii, G. A. (see Petrov, A. A.) - 14, 353 [14, 514]
Smolin, R. P. (see Bayukov, O. A.) - 14, 32 [14, 49]
Smolyakov, B. P. (see Kopvillem, U. Kh.) - 13, 398 [13, 558]
Smotritskii, L. M. (see Lobashev, V. M.) - 14, 251 [14, 373]
Sobel'man, I. I. (see Zel'dovich, B. Ya.) - 13, 129 [13, 182]
(see Andreeva, T. L.) - 13, 449 [13, 631]

Sobolenko, D. N. (see Ivanov, A. A.) - 14, 412 [14, 593]
Sobolev, V. V. (see Zakharov, V. E.) - 14, 390 [14, 564]
Sokolik, I. A. (see Frankevhich, E. L.) - 14, 401 [14, 577]
Sokolov, B. V. (see Gurevich, I. I.) - 14, 297 [14, 436]
Sokolov, S. A. (see Slutskin, A. A.) - 14, 40 [14, 60]
Sokolov, V. N. (see Kochelap, V. A.) - 13, 503 [13, 710]
Sokolova, E. Yu. (see Korolev, F. A.) - 13, 77 [13, 112]
Solomko, A. A. and V. I. Maistrenko. Influence of Laser Radiation on Instability in Yttrium-iron Garnets with Parallel Pumping - 14, 23 [14, 36]
Solov'ev, E. E. (see Kovtun, N. M.) - 14, 68 [14, 105]
(see Doroshev, V. D.) - 14, 343 [14, 501]
Solov'ev, E. S. (see Oparin, V. A.) - 13, 249 [13, 351]
Solov'ev, S. P. (see Miron, N. F.) - 13, 485 [13, 686
Solov'ev, V. G. Correlations Between Reduced Neutron and Radiative Widths of Neutron Resonances in Compound Nuclei with Odd Number of Neutrons - 14, 129 [14, 194]
Somenkov, V. A. (see Shil'shtein, S. Sh.) - 13, 214 [13, 301]
Sorokin, N. G. (see Chizhikov, S. I.) - 14, 336 [14, 490]
Sorokin, V. N. (see Andreeva, T. L.) - 13, 449 [13, 631]
Soskin, M. S., M. D. Bondarenko, and A. V. Gnatovskii. Holographic Method of Amplitude-phase Correction of Laser Beams - 14, 17 [14, 27]
Stafeev, V. I. (see Vorob'ev, L. E.) - 13, 98 [13, 140]
Starobinets, S. S. (see Zaushkin, V. V.) - 14, 206 [14, 310]
Stel'makh, O. M. (see Karlov, N. V.) - 14, 140 [14, 214]
Sterligov, A. G. (see Kryshkin, V. I.) - 13, 242 [13, 341]
Stishov, S. M. and V. I. Fedosimov. Thermodynamics of the Melting of Argon - 14, 217 [14, 326]
Stotland, M. A. (see Demirkhanov, R. A.) - 14, 122 [14, 184]
Strakhov, Yu. I. (see Karchevskii, A. I.) - 13, 424 [13, 595]
Suchkov, A. F. (see Basov, N. G.) - 14, 285 [14, 421]
(see Basov, N. G.) - 14, 375 [14, 545]
Sukhorukov, A. P. (see Aleshkevich, V. A.) - 13, 36 [13, 55]
, R. V. Khokhlov, and E. N. Shumilov. Dynamics of Clearing Clouds with a Laser Beam - 14, 161 [14, 245]
Suprunenko, V. A. (see Dikii, A. G.) - 14, 245 [14, 366]
Surkova, L. V. (see Barkov, L. M.) - 14, 60 [14, 93]
Svirina, E. P. Influence of Rotation of the Spontaneous-magnetization Vector on the Hall Effect - 13, 79 [13, 115]
Svistunova, I. I. (see Pokrovskii, Ya. E.) - 13, 212 [13, 297]
Svyatogor, L. V. (see Romanov, V. A.) - 14, 5 [14, 9]
Sychev, A. A. (see Malyshev, V. I.) - 13, 419 [13, 588]
(see Babenko, V. A.) - 14, 314 [14, 461]
Synakh, V. S. (see Zakharov, V. E.) - 14, 390 [14, 564]
Syr'ev, N. E. (see Pil'shchikov, A. I.) - 14, 159 [14, 242]
Syrnikov, P. P. (see Petrov, A. A.) - 14, 353 [14, 514]
Sysoev, V. M. Spectrum of Collective Excitations in Liquid ^{4}He - 14, 191 [14, 289]
Tager, A. S. (see Kobyzev, V. N.) - 13, 433 [13, 607]
(see Kobyzev, V. N.) - 14, 107 [14, 164]
Takibaev, Zh. S., E. G. Boos, L. A. San'ko, and T. Temiraliev. Study of Quasi-two-particle Reactions in Proton-proton Interactions at 10 GeV/c - 13, 83 [13, 122]
(see Anzon, Z. V.) - 14, 273 [14, 405]
Talalaev, M. A. (see Borovik-Romanov, A. S.) - 13, 54 [13, 80]
Tallerchik, B. A. (see Andreev, V. N.) - 13, 376 [13, 527]
Tal'roze, V. L. (see Shatrov, V. D.) - 13, 243 [13, 344]
Tantsyrev, G. D. and E. N. Nikolaev. Formation of Clusters in Ion Bombardment of Films of Frozen Polar Substances - 13, 337 [13, 473]
Tarasenkov, V. G. (see Barkov, L. M.) - 14, 60 [14, 93]
Tarasevich, S. V. (see Zotov, N. P.) - 14, 79 [14, 120]
Tarasova, N. M. (see Askar'yan, G. A.) - 14, 58 [14, 89]
Tatarenkov, V. M. (see Malyshev, Yu. M.) - 13, 422 [13, 592]
Tavger, B. A. (see Molin, V. N.) - 14, 215 [14, 323]
Temiraliev, T. (see Takibaev, Zh. S.) - 13, 83 [13, 122]
Teplinskii, V. M. (see Vol'skii, E. P.) - 13, 340 [13, 477]
Teplitskii, A. B. (see Yanson, I. K.) - 14, 26 [14, 40]
Terent'ev, M. V. Reaction of Production of Two Slow Pions in ee and ep Collisions - 13, 318 [13, 446]
Possible Connection Between the Amplitudes of the Processes $e^+e^- \to 3\pi$, $\gamma\gamma \to 3\pi$, and $\pi^0 \to 2\gamma$ - 14, 94 [14, 140]

Teslenko, V. S. (see Buzukov, A. A.) - 14, 189 [14, 286]
Tikhonov, E. A. (see Gandel'man, I. L.) - 14, 53 [14, 82]
(see Dyadyusha, G. G.) - 14, 220 [14, 330]
Timoshechkin, M. I. (see Voron'ko, Yu. K.) - 13, 86 [13, 125]
Titkov, A. N. (see Gross, E. F.) - 13, 235 [13, 332]
Titov, A. N. (see Malyshev, Yu. M.) - 13, 422 [13, 592]
Titov, Yu. I. and N. F. Severin. Determination of the Axial Form Factor of the Nucleon from the Cross Section for Electroproduction of Pions at Threshold - 14, 288 [14, 426]
Tkach, Yu. V. (see Gadetskii, N. P.) - 14, 101 [14, 155]
Tolmachev, A. V. and V. M. Kuz'michev. Use of Liquid Crystals to Make Infrared Radiation Visible - 14, 144 [14, 220]
Tolok, V. T. (see Dikii, A. G.) - 14, 245 [14, 366]
Tonkopryad, V. M. (see Dikii, A. G.) - 14, 245 [14, 366]
Trofimov, V. E. (see Sergeichev, K. F.) - 13, 166 [13, 236]
Troyan, V. I. (see Borman, V. D.) - 13, 221 [13, 311]
Trubnikov, B. A. High-frequency Electromagnetic Field in a Plasma Cavity - 14, 322 [14, 472]
Trukhtanov, V. A. (see Ovanesyan, N. S.) - 13, 347 [13, 488]
Trunov, V. A., A. Z. Yagud, A. I. Egorov, R. P. Dmitriev, and V. A. Ul'yanov. Investigation of Metamagnetic Transition in $FeCl_2$ with the Aid of Polarized Neutrons - 14, 416 [14, 223]
Tsakadze, Dzh. S. (see Andronikashvili, E. L.) - 14, 197 [14, 299]
Tsarev, V. A. (see Zotov, N. P.) - 14, 79 [14, 120]
(see Rakov, Yu. A.) - 14, 362 [14, 526]
Tsebro, V. I. (see Alekseevskii, N. E.) - 13, 174 [13, 247]
(see Alekseevskii, N. E.) - 13, 292 [13, 412]
Tsipenyuk, Yu. M. (see Gangrskii, Yu. P.) - 14, 249 [14, 370]
Tsivinskii, S. V. (see Bogod, Yu. A.) - 13, 349 [13, 491]
Tsukerblat, B. S. (see Vekhter, B. G.) - 13, 260 [13, 365]
Tsygan, A. I. Hypothesis of Gravitational Radiation of a Rapidly Rotating Neutron Star - 14, 317 [14, 465]
Ul'yanov, V. A. (see Trunov, V. A.) - 14, 146 [14, 223]
Ural'tsev, I. N. (see Gross, E. F.) - 13, 357 [13, 503]
Urin, M. G. (see Zaretskii, D. F.) - 13, 460 [13, 646]
Ushakov, A. Yu. (see Vorob'ev, L. E.) - 13, 98 [13, 140]
Uskov, V. V. (see Bayukov, O. A.) - 14, 32 [14, 49]
Usov, Yu. P. (see Kryshkin, V. I.) - 13, 242 [13, 341]
Uspenskii, M. N. (see Alekseev, L. A.) - 14, 192 [14, 292]
Valishev, R. M. (see Al'tshuler, S. A.) - 13, 382 [13, 535]
Varfolomeev, A. T. Polarization of Li^8 Fragments in Nuclear Reactions Produced by Slow π^- Mesons - 13, 17 [13, 27]
Varnin, V. P. (see Fedoseev, D. V.) - 14, 51 [14, 80]
Vdovin, V. L., O. A. Zinov'ev, A. A. Ivanov, L. L. Kozorovitskii, V. V. Parail, Ya. R. Rakhimbabaev, and V. D. Rusanov. Excitation of Magnetosonic Resonance in the Tokamak Plasma - 14, 149 [14, 228]
Vedeneev, O. V. (see Atrashkevich, V. B.) - 13, 51 [13, 76]
Vekhter, B. G., V. A. Kovarskii, Yu. B. Rozenfel'd, and B. S. Tsukerblat. Possibility of Controlling the Parameters of Phononless Lines with the Aid of Ultrasound - 13, 260 [13, 365]
Velichkina, T. S. (see Baranskii, K. N.) - 13, 34 [13, 52]
Vereshchagin, L. F. (see Fateeva, N. S.) - 13, 110 [13, 157]
(see Fateeva, N. S.) - 14, 153 [14, 233]
Verkin, B. I. (see Bogod, Yu. A.) - 13, 349 [13, 491]
(see Yanson, I. K.) - 14, 26 [14, 40]
Veselago, V. G., M. V. Glushkov, and L. V. Lyn'ko. Propagation of Magnetoplasma Waves in Bi Alloyed with Te - 13, 247 [13, 349]
Veshchunov, Yu. P. (see Zakharchenya, B. P.) - 13, 137 [13, 195]
Vinogradov, A. V. and V. V. Pustovalov. Absorption of Light by an Inhomogeneous Laser Plasma - 13, 226 [13, 317]
Vinogradov, V. B. (see Budagov, Yu. A.) - 13, 471 [13, 665]
(see Budagov, Yu. A.) - 14, 243 [14, 363]
(see Boldea, V.) - 14, 278 [14, 412]
(see Amaglobeli, N. S.) - 14, 385 [14, 558]
Vlasenko, A. A. (see Yanson, I. K.) - 13, 294 [13, 415]
Vlasenko, N. A. and Zh. A. Pukhlii. Population Inversion in Solids by Impact Excitation of Impurities - 14, 306 [14, 449]
Vlasov, D. V. and V. P. Zaitsev. Experimental Observation of Nonlinear Optical Activity - 14, 112 [14, 171]
Volobuev, S. A., A. M. Gal'per, V. G. Kirillov-Ugryumov, B. I. Luchkov, and Yu. V. Ozerov. Observation of γ Quanta with Energy Larger than 100 MeV from the Radio Source 3C120 - 13, 28 [13, 43]

Volodin, V. A. and D. A. Kirzhnits. Influence of Crystal Lattice on Nuclear Properties of Superdense Matter - 13, 320 [13, 450]
Volod'ko, A. G. (see Budagov, Yu. A.) - 13, 471 [13, 665]
(see Budagov, Yu. A.) - 14, 243 [14, 363]
(see Boldea, V.) - 14, 278 [14, 412]
(see Amaglobeli, N. S.) - 14, 385 [14, 558]
Vol'pin, M. E. (see Karimov, Yu. S.) - 14, 142 [14, 217]
Volovik, V. D. (see Borshkovskii, I. A.) - 13, 390 [13, 546]
Vol'skii, E. P. and V. M. Teplinskii. Landau Quantum Oscillations of the Surface Resistance of MoO2 - 13, 340 [13, 477]
Vorob'ev, L. E., V. S. Komissarov, V. I. Stafeev, and A. Yu. Ushakov. Electro-optical Kerr Effect on Hot Electrons in n-InSb - 13, 98 [13, 140]
Voronel', A. V. (see Rykov, A. M.) - 13, 21 [13, 33]
Thermodynamic Quantities near the Crystallization Points of Liquids - 14, 174 [14, 263]
Voron'ko, Yu. K., E. L. Nolle, V. V. Osiko, and M. I. Timoshechkin. Induced Radiation of $Y_3Al_3O_{12}$-$(Nd)^{3+}$ Excited by an Electron Beam - 13, 86 [13, 125]
Voronov, G. S. (see Andryukhina, E. D.) - 14, 210 [14, 317]
Vyshlov, S. S., L. P. Ivanov, A. S. Logginov, and K. Ya. Senatorov. Transverse Mode Locking in an Injection Laser - 13, 90 [13, 131]
Yagud, A. Z. (see Trunov, V. A.) - 14, 146 [14, 223]
Yakimov, E. B. (see Berenblyum, A. S.) - 13, 440 [13, 619]
Yakimov, S. S. (see Gamlitskii, V. Ya.) - 13, 88 [13, 129]
(see Nikolaev, V. I.) - 13, 100 [13, 143]
(see Nikolaev, V. I.) - 14, 135 [14, 208]
Yampol'skii, P. A. (see Makshantsev, V. I.) - 14, 115 [14, 175]
Yanait, Yu. A., G. A. Abakumov, G. I. Kromskii, A. P. Simonov, V. V. Fadeev, and R. V. Khokhlov. Generation in the Ultraviolet with Frequency Tuning, Using a Paraterphenyl Solution and Excitation with a Flash Lamp - 13, 438 [13, 616]
Yanchev, I. Ya. (see Shklovskii, B. I.) - 14, 233 [14, 348]
Yanson, I. K. and A. A. Vlasenko. Giant Zero-bias Anomalies and Space Charge Limited Currents in Tunnel Junctions - 13, 294 [13, 415]
, B. I. Verkin, L. I. Ostrovskii, A. B. Teplitskii, and O. I. Shklyarevskii. Oscillations of the Conductivity of Tunnel Contacts Containing Uracil in the Barrier Layer - 14, 26 [14, 40]
Yufarkin, V. Ya. (see Bratolyubova-Tsulukidze, L. S.) - 13, 404 [13, 566]
Zagoruiko, N. V., V. I. Savenko, and N. N. Bekkauer. Estimate of Charge Density on Dislocations in NaCl Crystals - 14, 186 [14, 283]
Zaitsev, V. P. (see Vlasov, D. V.) - 14, 112 [14, 171]
Zaitseva, N. G. (see Arl't, R.) - 13, 397 [13, 556]
Zakharchenya, B. P., V. G. Fleisher, R. I. Dzhioev, Yu. P. Veshchunov, and I. B. Rusanov. Effect of Optical Orientation of Electron Spins in a GaAs Crystal - 13, 137 [13, 195]
(see Fleisher, V. G.) - 13, 299 [13, 422]
(see Dzhioev, R. I.) - 14, 381 [14, 553]
Zakharov, S. M. (see Basov, N. G.) - 13, 489 [13, 691]
Zakharov, V. E., V. V. Sobolev, and V. S. Synakh. Character of Singularity and Stochastic Phenomena in Self Focusing - 14, 390 [14, 564]
Zakharov, V. P. (see Zaliva, V. I.) - 13, 93 [13, 133]
Zakosarenko, V. M. (see Alekseevskii, N. E.) - 13, 292 [13, 412]
Zaliva, V. I. and V. P. Zakharov. Current Oscillations in Amorphous Semiconductors - 13, 93 [13, 133]
Zalkind, V. M. (see Dikii, A. G.) - 14, 245 [14, 366]
Zalyubovskii, I. I. (see Borshkovskii, I. A.) - 13, 390 [13, 546]
Zaretskii, D. F. and M. G. Urin. Neutron Strength Functions - 13, 460 [13, 646]
Zaslavskii, A. N. and V. A. Khoze. Possibility of Determining the Spin and Parity of the X^0 (960) Meson in Electromagnetic Interactions - 13, 500 [13, 706]
Zaushkin, V. V., V. S. L'vov, S. L. Musher, and S. S. Starobinets. Proof of Stage-by-stage Excitation of Parametric Spin Waves - 14, 206 [14, 310]
Zavadskii, Yu. I. and B. V. Kornilov. Observation of Motion of Slow Recombination Waves (RW) in Silicon Doped with Zinc - 14, 407 [14, 585]
Zavaritskii, N. V. and V. N. Grigor'ev. Influence of Magnetic Scattering on the Tunnel Current of Superconductors - 14, 73 [14, 112]
Zavoiskii, E. K., Yu. G. Kalinin, V. A. Skoryupin, V. V. Shapkin, and G. V. Sholin. Observation of Asymmetry of the Distribution of Turbulent Electric Fields in a Direct Discharge Plasma by Means of the Polarization in the Stark Profile of the Hα Line - 13, 12 [13, 19]
Zav'yalov, Yu. G. (see Asche, M.) - 13, 285 [13, 401]
Zeidlits, V. P. (see Berezina, G. P.) - 14, 8 [14, 13]
(see Berezina, G. P.) - 14, 49 [14, 77]
Zel'dovich, B. Ya. and I. I. Sobel'man. Possibility of Shortening Light Pulses in Alkali-metal Vapor - 13, 129 [13, 182]

Zel'dovich, Ya. B. and A. A. Ovchinnikov. Repopulation of Highly-excited Vibrational Levels in a Cold Lattice - 13, 452 [13, 636]
Generation of Waves by a Rotating Body - 14, 180 [14, 270]
Zelenin, G. V. (see Kikii, A. G.) - 14, 245 [14, 366]
Zemskii, V. I., G. O. Andrianov, and I. V. Mochan. Indirect Transitions in Germanium in Crossed Electric and Magnetic Fields - 13, 344 [13, 483]
Zevin, V. Ya. and A. B. Brik. "Forbidden" Cross-relaxation Transitions and Their Role in the Dynamics of Stationary ENDOR - 13, 268 [13, 376]
Zhabitenko, N. K., I. Ya. Kucherov, E. G. Miselyuk, S. I. Pekar, and N. S. Chernaya. Absorption and Amplification of Ultrasound in a Two-layer System Consisting of a Piezoelectric Ceramic with Large Dielectric Constant and a Semiconductor - 14, 312 [14, 458]
Zhabotinskii, M. E. (see Davydov, B. L.) - 13, 238 [13, 336]
Zhad'ko, I. P. (see Romanov, V. A.) - 14, 5 [14, 9]
Zhdan, A. G., E. V. Chenskii, E. S. Artobolevskaya, R. S. Govzdover, E. I. Rau, and V. I. Petrov. Opposing Ferroelectric Domains in SbSI Single Crystals - 14, 105 [14, 161]
Zherebchevskii, D. E. (see Naberezhnykh, V. P.) - 13, 105 [13, 150]
Zhitnikov, R. A. (see Gutner, A. B.) - 13, 298 [13, 420]
Zinov'ev, O. A. (see Vdovin, V. L.) - 14, 149 [14, 228]
Zolin, V. F. (see Davydov, B. L.) - 13, 238 [13, 336]
Zolotovskii, O. A. (see Altyntsev, A. T.) - 13, 139 [13, 197]
Zolotukhin, I. V. (see Postnikov, V. S.) - 13, 6 [13, 10]
Zotov. N. P., S. V. Tarasevich, and V. A. Tsarev. The Reaction $\pi^- p \to nn$ and "Universality" of Complex Trajectories - 14, 79 [14, 120]
Zubarev, I. G. (see Gvardzhaladze, T. L.) - 13, 111 [13, 159]
Zubkov, V. I., Ya. A. Monosov, and V. I. Shcheglov. Spin Mandel'shtam-Brillouin Effect - 13, 161 [13, 229]
Zubov, V. A., A. V. Kraiskii, and T. I. Kuznetsova. Holographic Recording of Nonstationary Processes - 13, 316 [13, 443]
Zubov, Yu. G. (see Morozov, V. M.) - 14, 91 [14, 137]
Zverev, G. M. (see Bilak, V. I.) - 14, 199 [14, 301]

SUBJECT INDEX FOR VOLUMES 13 AND 14, 1971

Subjects:

Atomic and molecular spectroscopy
Atomic collisions
Cosmic rays
Cosmology and astrophysics
Elementary Particles:
  Experiment
  Theory of electromagnetic interactions
  Theory of strong interactions
  Theory of weak interactions
Gases and liquids
Gravitation
Helium, liquid and solid
Hydro- and gasdynamics
Instruments and measurement methods
Luminescence
Magnetic resonances
Mossbauer effect
Nonlinear optics, optical breakdown
Nuclear physics, nuclear reactions
Nuclear physics, nuclear structure
Plasma and gas discharge
Quantum field theory
Quantum generators
Radiophysics and electronics
Scattering and absorption in matter
Shock waves: physical methods of acting on chemical reactions
Solid State:
  Crystalline state
  Dielectrics
  Electric properties
  Ferroelectrics
  Magnetic properties
  Mechanical properties
  Metals
  Optical properties
  Phonon spectra
  Semiconductors
Sound waves
Superconductivity
Thermal properties of matter, phase transitions
Thin films, surface phenomena

ATOMIC AND MOLECULAR SPECTROSCOPY

Molecules in an Ultrastrong Magnetic Field. B. B. Kadomtsev and V. S. Kudryavtsev - 13, 9 [13, 15]

Observation of Asymmetry of the Distribution of Turbulent Electric Fields in a Direct Discharge Plasma by Means of the Polarization in the Stark Profile of the Hα Line. E. K. Zavoiskii, Yu. G. Kalinin, V. A. Skoryupin, V. V. Shapkin, and G. V. Sholin - 13, 12 [13, 19]

Atoms in a Superstrong Magnetic Field. B. B. Kadomtsev and V. S. Kudryavtsev - 13, 42 [13, 61]

Direct Proof of the Existence of an Excited Negative C^- Ion and the Determination of the Binding Energy of the Electron in It. V. A. Oparin, R. N. Il'in, I. T. Serenkov, E. S. Solov'ev, and N. V. Fedorenko - 13, 249 [13, 351]

Optical Orientation of Kr Atoms in the Metastable $^3P_2$ State. A. B. Gutner, R. A. Zhitnikov, and A. I. Okunevich - 13, 298 [13, 420]

Nonequilibrium Dissociation of a Molecular Gas Under the Influence of Resonant Laser Radiation, with Allowance for Vibration-vibration Collisions. Yu. V. Afanas'ev, E. M. Belenov, E. P. Markin, and I. A. Poluektov - 13, 331 [13, 462]

Temperature Dependence of the Lifetime of Triplet Positronium in Aliphatic Hydrocarbons and Their Derivatives. A. P. Buchikhin, V. I. Gol'danskii, and V. P. Shantarovich - 13, 444 [13, 624]

Investigation of Reactions of Excited Iodine Atoms with the Aid of a Photodissociation Laser. T. L. Andreeva, S. V. Kuznetsova, A. I. Maslov, I. I. Sobel'man, and V. N. Sorokin - 13, 449 [13, 631]

Narrow Molecular Resonances Upon Saturation of Absorption in Separated Light Beams. O. N. Kompanets and V. S. Letokhov - 14, 12 [14, 20]

Electron-vibrational Spectrum of Dimers in the Case of Strong Coupling. A. A. Ivanov, A. A. Puretskii, A. V. Lukashin, V. I. Permogorov, and M. D. Frank-Kamenetskii - 14, 283 [14, 419]

Relaxation of μ^+-meson Spin in Substances with Saturated Bonds. I. I. Gurevich, E. A. Meleshko, I. A. Muratova, B. A. Nikol'skii, V. S. Roganov, V. I. Selivanov, and B. V. Sokolov - 14, 297 [14, 436]

Induced Emission on a Number of Transitions of the Rubidium Atom Following Two-photon Excitation. A. M. Bonch-Bruevich, V. A. Khodovoi, and V. V. Khromov - 14, 333 [14, 487]

Purely Rotational Spectra of Nonpolar Molecules in the Vibrational Ground State. M. B. Aliev - 14, 417 [14, 600]

ATOMIC COLLISIONS

Formation of Positronium Upon Collision of Fast Particles and Its Decay. G. V. Meledin, V. G. Serbo, and A. K. Slivkov - 13, 68 [13, 98]

Allowance for the Coulomb Interaction in the Scattering of a Fast Charged Particle by a

Nucleus. L. A. Kondratyuk and V. B. Kopeliovich - 13, 123 [13, 176]
Experimental Investigation of the Differential Cross Section of Elastic Scattering of Excited Atoms by Electrons of a Gas-discharge Plasma. S. N. Atutov, A. G. Nikitenko, S. G. Rautian, and E. G. Saprykin - 13, 163 [13, 232]
Possibility of Producing Inverted Population in Atomic Beams by Charge Exchange of Protons with Atoms. L. P. Presnyakov and V. P. Shevel'ko - 13, 203 [13, 286]
Penning Ionization in Collision of Fast Unexcited Rb Atoms with Ar Atoms. Yu. F. Bydin, V. I. Ogurtsov, and V. S. Sirazetdinov - 13, 240 [13, 340]
Interference Effect in the Cross Section for the Charge Exchange of Li^+ Ions with He Atoms. Z. Z. Latypov and A. A. Shaporenko - 13, 375 [13, 525]
Exchange of Energy Between Collectively-interacting Beams of Positive and Negative Ions. M. D. Gabovich and A. P. Naida - 14, 1 [14, 3]
Making a Medium Translucent to Radiation Excited by a Directed Stream of Atomic Particles. V. V. Afrosimov, Yu. S. Gordeev, V. M. Lavrov, and G. N. Ogurtsov - 14, 275 [14, 408]
Scattering and Deactivation of Metastable $N_2(A^3\Sigma_u^+)$ Molecules. A. P. Kalinin and V. B. Leonas - 14, 329 [14, 481]

COSMIC RAYS

Singularities of the Lateral Distribution of Radio Emission of Extensive Air Showers. V. B. Atrashkevich, O. V. Vedeneev, and G. B. Khristiansen - 13, 51 [13, 76]
Groups of Parallel Penetrating Particles and Their Possible Sources. M. F. Bibilashvili - 13, 457 [13, 643]
Cosmic Gamma Radiation in the 0.3 - 3.7 MeV Range. S. V. Golenetskii and E. P. Mazets - 14, 131 [14, 201]
Cosmic Rays and the Elementary Length. D. A. Kirzhnits and V. A. Chechin - 14, 172 [14, 261]

COSMOLOGY AND ASTROPHYSICS

Observation of γ Quanta with Energy Larger than 100 MeV from the Radio Source 3C120. S. A. Volobuev, A. M. Gal'per, V. G. Kirillov-Ugryumov, B. I. Luchkov, and Yu. V. Ozerov - 13, 28 [13, 43]
Cyclotron Instability of the Outer Radiation Belt of the Earth Under Conditions of Self-modulation of Growing Waves. A. V. Gul'el'mi - 13, 57 [13, 85]
Splitting of a Photon in a Magnetic Field and Polarization of Hard Radiation from Pulsars. D. V. Gal'tsov and V. V. Skobelev - 13, 122 [13, 173]
Influence of Crystal Lattice on Nuclear Properties of Superdense Matter. V. A. Volodin and D. A. Kirzhnits - 13, 320 [13, 450]
Upper Limits of Luminosity of Certain Extragalactic Objects in the Hard γ-ray Region. L. S. Bratolyubova-Tsulukidze, L. F. Kalinkin, A. S. Melioranskii, O. F. Prilutskii, E. A. Pryakhin, I. A. Savenko, and V. Ya. Yufarkin - 13, 404 [13, 566]
Concerning the Nature of the Cosmological Constant and the Mechanism of Gravitation of Vacuum. M. M. Gerdov - 13, 498 [13, 704]
Generation of Waves by a Rotating Body. Ya. B. Zel'dovich - 14, 180 [14, 270]
Hypothesis of Gravitational Radiation of a Rapidly Rotating Neutron Star. A. I. Tsygan - 14, 317 [14, 465]
Observation of Variable Circular Polarization in the Optical Emission of the X-ray Source Sco X - 1. Yu. N. Gnedin and O. S. Shulov - 14, 348 [14, 507]

ELEMENTARY PARTICLES

Experiment

Study of Quasi-two-particle Reactions in Proton-proton Interactions at 10 GeV/c. Zh. S. Takibaev, E. G. Boos, L. A. San'ko, and T. Temiraliev - 13, 83 [13, 122]
Dynamic Radiation Generated in Crystals by Particles with Ultrarelativistic Energies. A. I. Alikhanyan, G. M. Garibyan, M. P. Lorikyan, and K. K. Shikhlyarov - 13, 142 [13, 201]
Correlation Between the Transverse and Longitudinal Momenta in Multiple Generation. N. N. Roinishvili and E. N. Sherrer - 13, 171 [13, 243]
Determination of the Radius of Strong Interaction of Pb and the Mean Free Path of the π^0 Meson in Nuclear Matter. V. I. Kryshkin, A. G. Potashov, A. G. Sterligov, and Yu. P. Usov - 13, 242 [13, 341]
Measurement of the Angular Correlation Between the Neutron Spin and the Electron Momentum in the Decay of Polarized Neutrons. B. G. Erozolimskii, L. N. Bondarenko, Yu. A. Mostovoi, B. A. Obinyakov, V. P. Fedunin, and A. I. Frank - 13, 252 [13, 356]
Possible Existence of $\pi^-\gamma$ Resonance with Mass 270 MeV. Yu. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, V. S. Kladnitskii, N. K. Kutsidi, Yu. F. Lomakin, V. A. Maksimenko, G. Martinska, V. B. Flyagin, Yu. N. Kharzheev, and L. Sandor - 13, 471 [13, 665]
Measurement of the Magnetic Moment of the Λ^0 Hyperon. L. M. Barkov, I. I. Gurevich, L. A. Makar'ina, V. P. Martem'yanov, A. P. Mishakova, V. V. Ogurtsov, L. V. Surkova, V. G. Tarasen-

kov, S. Kh. Khakimov, L. A. Chernysheva, and S. A. Chueva - 14, 60 [14, 93]
Production of $\pi^+2\pi^-$ System of Nuclei at Small Momentum Transfers. V. G. Kirillov-Ugryumov, V. I. Levina, A. K. Ponosov, V. P. Protasov, and F. M. Sergeev - 14, 110 [14, 168]
Search for Baryon Resonances in the $p\gamma$ System. Yu. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, V. S. Kladnitskii, N. K. Kutsidi, Yu. F. Lomakin, G. Martinska, V. B. Flyagin, and L. Sandor - 14, 243 [14, 363]
Interaction of Negative Pions in Nuclear Emulsion at Energies 7.5, 17, and 60 GeV. Z. V. Anzon, Zh. S. Takibaev, and I. Ya. Chasnikov - 14, 273 [14, 405]
Investigation of the $K_1^0K_1^0$ System in π^-p Interactions at 4.0 and 5.0 GeV/c. V. Boldea, Yu. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, N. G. Grigoryan, V. P. Dzhelepov, Zh. K. Karamyan, V. S. Kladnitskii, A. A. Kuznetsov, Yu. F. Lomakin, G. Martinska, N. N. Mel'nikova, A. Mikhul, T. Ponta, S. Felea, V. B. Flyagin, B. Chadraa, L. Sandor, and P. V. Shlyapnikov - 14, 278 [14, 412]
Determination of the Axial Form Factor of the Nucleon from the Cross Section for Electroproduction of Pions at Threshold. Yu. I. Titov and N. F. Severin - 14, 288 [14, 426]
Coherent Production of Three Pions by π^- Mesons with Momentum 5 GeV/c on Carbon Nuclei N. S. Amaglobeli, Yu. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, R. G. Salukvadze, V. B. Flyagin, D. I. Khubua, and L. Sandor - 14, 385 [14, 558]

Theory of Electromagnetic Interactions

Production of e^+e^- Pairs in an Alternating External Field. V. S. Popov - 13, 195 [13, 261]
Pion Photoproduction of Nucleon Near Threshold and the Contribution for Vector-meson Exchange. G. M. Radutskii and V. A. Serdyutskii - 13, 205 [13, 288]
Electroproduction in Colliding-beam Experiments. V. N. Baier and V. S. Fadin - 13, 208 [13, 293]
Electromagnetic Form Factor for the Pion in the Dual Resonant Model. G. S. Iroshnikov and A. S. Chernov - 13, 265 [13, 372]
Dual Amplitude for Processes with Participation of Photons. A. P. Kobushkin - 13, 277 [13, 387]
High-energy Asymptotic Cross Sections for the Production of e^+e^- Pairs in Collisions of Heavy Charged Particles. E. A. Kuraev and V. T. Lazurik-El'tsufin - 13, 280 [13, 391]
Reaction of Production of Two Slow Pions in ee and ep Collisions. M. V. Terent'ev - 13, 318 [13, 446]
Electromagnetic Contributions to the Total Cross Section of Hadron Scattering. V. M. Budnev and I. F. Ginzburg - 13, 370 [13, 519]
Possible Method of Measuring the Electromagnetic Form Factor of the Neutrino. V. I. Andryushin, S. M. Bilen'kii, and S. S. Gershtein - 13, 409 [13, 573]
Production of Muon Pairs with Large Invariant Masses in Hadron Collisions. E. V. Shuryak - 13, 465 [13, 653]
Possibility of Determining the Spin and Parity of the X^0 (960) Meson in Electromagnetic Interactions. A. N. Zaslavskii and V. A. Khoze - 13, 500 [13, 706]
Electroproduction of Pions on Nuclei in Bound States. V. F. Dmitriev - 14, 81 [14, 124]
Possibility of Observing Quasinuclear Meson Resonances in Colliding e^+e^- Beams. O. D. Dal'karov, V. B. Mandel'tsveig, and V. A. Khoze - 14, 87 [14, 131]
Possible Connection Between the Amplitudes of the Processes $e^+e^- \to 3\pi$, $\gamma\gamma \to 3\pi$, and $\pi^0 \to 2\gamma$. M. V. Terent'ev - 14, 94 [14, 140]
Scattering of γ Quanta by Nucleons in the Quark Model. A. I. Akhiezer and M. P. Rekalo - 14, 119 [14, 181]
Critical Charge in Collisions of Nuclei. V. S. Popov and T. I. Rozhdestvenskaya - 14, 177 [14, 267]
Electroproduction of Pions by Polarized Electrons on Polarized Protons. A. S. Omelaenko - 14, 268 [14, 395]
The Reaction $\gamma p \to np$ and the Dip Mechanism in Photoproduction. Yu. A. Rakov and V. A. Tsarev - 14, 362 [14, 526]

Theory of Strong Interactions

Contribution to the Theory of Strong Interactions at High Energies. A. Z. Patashinskii - 13, 63 [13, 92]
Pion Photoproduction of Nucleon Near Threshold and the Contribution for Vector-meson Exchange. G. M. Radutskii and V. A. Serdyutskii - 13, 205 [13, 288]
Electroproduction in Colliding-beam Experiments. V. N. Baier and V. S. Fadin - 13, 208 [13, 293]
Verification of Models of the Asymptotic Behavior of $\pi^\pm p$ Scattering Amplitudes. O. V. Dumbrais - 13, 224 [13, 315]
Determination of the Radius of Strong Interaction of Pb and the Mean Free Path of the π^0 Meson in Nuclear Matter. V. I. Kryshkin, A. G. Potashov, A. G. Sterligov, and Yu. P. Usov - 13, 242 [13, 341]
Electromagnetic Form Factor for the Pion in the Dual Resonant Model. G. S. Iroshnikov and A. S. Chernov - 13, 265 [13, 372]
Dual Amplitude for Processes with Participation of Photons. A. P. Kobushkin - 13, 277 [13, 387]

Reaction of Production of Two Slow Pions in ee and ep Collisions. M. V. Terent'ev - 13, 318 [13, 446]
Physical States on Daughter Trajectories in the Dual Amplitude Under the Condition $\alpha(0) = 1$. V. A. Kudryavtsev and E. M. Levin - 13, 360 [13, 507]
Power-law Increase of Amplitude of Scattering of Large-spin Virtual Particle with Increasing Energy. L. L. Frankfurt - 13, 462 [13, 650]
Production of Muon Pairs with Large Invariant Masses in Hadron Collisions. E. V. Shuryak - 13, 465 [13, 653]
Possibility of Determining the Spin and Parity of the X^0 (960) Meson in Electromagnetic Interactions. A. N. Zaslavskii and V. A. Khoze - 13, 500 [13, 706]
The Reaction $\pi^- p \to \eta n$ and "Universality" of Complex Trajectories. N. P. Zotov, S. V. Tarasevich, and V. A. Tsarev - 14, 79 [14, 120]
Multibaryon Resonances with $B > 5$ in the Model with Exchange Δ-N Interaction. V. A. Karmanov - 14, 84 [14, 127]
Possibility of Observing Quasinuclear Meson Resonances in Colliding e^+e^- Beams. O. D. Dal'karov, V. B. Mandel'tsveig, and V. A. Khoze - 14, 87 [14, 131]
The Mass Spectrum of (Λp) from the Reaction $K^- d \to \pi^- \Lambda p$. A. E. Kudryavtsev - 14, 90 [14, 134]
Possible Connection Between the Amplitudes of the Processes $e^+e^- \to 3\pi$, $\gamma\gamma \to 3\pi$, and $\pi^0 \to 2\gamma$. M. V. Terent'ev - 14, 94 [14, 140]
Scattering of γ Quanta by Nucleons in the Quark Model. A. I. Akhiezer and M. P. Rekalo - 14, 119 [14, 181]
New Type of Baryon Resonances. O. D. Dal'karov, B. O. Kerbikov, V. B. Mandel'tsveig, and I. S. Shapiro - 14, 127 [14, 191]
Splitting of A_2 Meson. A. B. Kaidalov - 14, 262 [14, 387]
Electroproduction of Pions by Polarized Electrons on Polarized Protons. A. S. Omelaenko - 14, 268 [14, 395]
Constancy of Total Cross Sections and the Processes $\pi^- p \to nn$. Z. R. Babaev - 14, 359 [14, 523]
The Reaction $\gamma p \to \eta p$ and the Dip Mechanism in Photoproduction. Yu. A. Rakov and V. A. Tsarev - 14, 362 [14, 526]
Soft-pion Theorems and Direct Nuclear Processes. G. A. Lobov and T. A. Lomonosova - 14, 421 [14, 605]

Theory of Weak Interactions

Heavy Leptons and Neutrino Astronomy. B. Pontecorvo - 13, 199 [13, 281]
Determination of the Mass of the Muonic Neutrino in Radiative Pion Decays. D. Yu. Bardin, G. V. Mitsel'makher, and N. M. Shumeiko - 13, 273 [13, 383]
Possible Method of Measuring the Electromagnetic Form Factor of the Neutrino. V. I. Andryushin, S. M. Bilen'kii, and S. S. Gershtein - 13, 409 [13, 573]
Note on Searches for Intermediate Bosons. E. M. Lipmanov - 14, 364 [14, 529]

GASES AND LIQUIDS

Transverse Sound in Liquids. A. A. Berdyev and I. B. Lezhnev - 13, 32 [13, 49]
Propagation of Transverse Hypersonic Waves in Low-viscosity Liquids. K. N. Baranskii, G. A. Sever, and T. S. Velichkina - 13, 34 [13, 52]

GRAVITATION

High-frequency Detection of Gravitational Waves. V. B. Braginskii and M. V. Menskii - 13, 417 [13, 585]
Concerning the Nature of the Cosmological Constant and the Mechanism of Gravitation of Vacuum. M. M. Gerdov - 13, 498 [13, 704]
Hypothesis of Gravitational Radiation of a Rapidly Rotating Neutron Star. A. I. Tsygan - 14, 317 [14, 465]
Do Weber's Experiments Reveal the Photon Rest Mass? M. E. Getsenshtein - 14, 427 [14, 611]

HELIUM, LIQUID AND SOLID

Diffusion Mobility of Negative Ions in Solid Helium. V. B. Shikin - 13, 44 [13, 65]
Damping of High-frequency Sound in a Fermi-Bose Liquid. D. M. Semiz - 13, 328 [13, 459]
Surface Second Sound in Liquid Helium. A. F. Andreev and D. A. Kompaneets - 13, 511 [13, 720]
Spectrum of Collective Excitations in Liquid ^{4}He. V. M. Sysoev - 14, 191 [14, 289]
Excitation of Sound in a Fermi-Bose Liquid. D. M. Semiz - 14, 371 [14, 538]

HYDRO- AND GASDYNAMICS

Drift Stationary Solutions in the Theory of Weak Turbulence. A. V. Kats and V. M. Kontorovich - 14, 265 [14, 392]

INSTRUMENTS AND EXPERIMENTAL METHODS

Excitation of SRS Using a Low-power Laser. F. A. Korolev, V. I. Odintsov, and E. Yu. Sokolova - 13, 77 [13, 112]
Resonatorless Parametric Light Generator Using an α-HIO_3 Crystal. A. I. Kovrigin and P. V. Nikles - 13, 313 [13, 440]

Holographic Recording of Nonstationary Processes. V. A. Zubov, A. V. Kariskii, and T. I. Kuznetsova - 13, 316 [13, 443]
CW Chemical Laser Using DF-CO_2. N. G. Basov, V. V. Gromov, E. L. Koshelev, E. P. Markin, A. N. Oraevskii, D. S. Shapovalov, and V. A. Shcheglov - 13, 352 [13, 496]
Possibility of Producing High Pressure in a Solid by Means of a Strong-current Electron Beam. O. V. Bodgankevich and A. A. Rukhadze - 13, 369 [13, 517]
Detecting Properties of Metal-InSb Point Contact at a Wavelength of 337 μ and T = 300°K. S. F. Dyubko and M. N. Efimenko - 13, 379 [13, 531]
Investigation of the Character of the Emission of a Neodymium-glass Laser with a Passive Shutter Having a Finite Relaxation Time. V. I. Malyshev, A. A. Sychev, and V. A. Babenko - 13, 419 [13, 588]
Optical Frequency Standard with a Beam Type Absorbing Cell. Yu. M. Malyshev, V. M. Tatarenkov, and A. N. Titov - 13, 422 [13, 592]
Generation in the Ultraviolet with Frequency Tuning, Using a Paraterphenyl Solution and Excitation with a Flash Lamp. Yu. A. Yanait, G. A. Abakumov, G. I. Kromskii, A. P. Simonov, V. V. Fadeev, and R. V. Khokhlov - 13, 438 [13, 616]
Nonlinear Conversion of IR Radiation into Visible Light as a New Method of Absorption Spectral Analysis. E. N. Antonov, M. A. Bol'shov, V. G. Koloshnikov, and D. N. Nikogosyan - 14, 15 [14, 23]
Holographic Method of Amplitude-phase Correction of Laser Beams. M. S. Soskin, M. D. Bondarenko and A. V. Gnatovskii - 14, 17 [14, 27]
Mechanism of Acceleration of Ions on the Front of Ionization of a Gas by a Relativistic Electron Beam. S. E. Rosinskii, A. A. Rukhadze, and V. G. Rukhlin - 14, 34 [14, 53]
Detonation Gasdynamic Laser. M. S. Dzhidzhoev, V. V. Korolev, V. N. Markov, V. G. Platonenko, and R. V. Khokhlov - 14, 47 [14, 73]
Use of Liquid Crystals to Make Infrared Radiation Visible. A. V. Tolmachev and V. M. Kuz'michev - 14, 144 [14, 220]
Results of Investigation of a Wide-gap Spark Chamber with Compensation of the Particle-track Drift. K. M. Avakyan, R. B. Aivazyan, V. M. Krishchian, and E. M. Matevosyan - 14, 239 [14, 357]
Method of Reducing the Relaxation Time of a Passive Neodymium-glass Laser Shutter. V. A. Babenko, V. I. Malyshev, and A. A. Sychev - 14, 314 [14, 461]

LUMINESCENCE

Luminescence of the Local Center of a Crystal in the Presence of Uniaxial Deformation. E. S. Medvedev - 13, 39 [13, 59]
Luminescence of Solid Organic Dyes Bombarded by Thermal Hydrogen Atoms. V. D. Shatrov, E. B. Gordon, A. N. Ponomarev, and V. L. Tal'roze - 13, 243 [13, 344]
Investigation of the Temporal Characteristics of Deformation Luminescence. V. V. Korshunov, F. D. Senchukov, and S. Z. Shmurak - 13, 289 [13, 408]
Biexciton in Cu_2O Crystal. O. I. L'vov and P. P. Pavinskii - 14, 167 [14, 253]
Sonoluminescence Following Focusing of Laser Radiation into a Liquid. A. A. Buzukov and V. S. Teslenko - 14, 189 [14, 286]
Excitation Energy Transfer between Trivalent Rare-earth Ions, Stimulated by a Radiation Field. V. I. Bilak, G. M. Zverev, G. O. Karpetyan, and A. M. Onishchenko - 14, 199 [14, 301]
Intense Fluorescence from the Second Excited State of Molecular Solutions of Organic Dyes. G. G. Dyadyusha, O. V. Przhonskaya, E. A. Tikhonov, and M. T. Shpak - 14, 220 [14, 330]

MAGNETIC RESONANCES

Resonance in Superconductors. M. Ya. Azbel' and R. G. Mints - 13, 60 [13, 89]
Electromagnetic Waves Near Hole Cyclotron Resonance in Bismuth. V. P. Naberezhnykh, D. E. Zherebchevskii, and V. L. Mel'nik - 13, 105 [13, 150]
Spin Mandel'shtam-Brillouin Effect. V. I. Zubkov, Ya. A. Monosov, and V. I. Shcheglov - 13, 161 [13, 229]
"Forbidden" Cross-relaxation Transitions and Their Role in the Dynamics of Stationary ENDOR. V. Ya. Zevin and A. B. Brik - 13, 268 [13, 376]
Instability of Spin Waves in Ferroelectric Antiferromagnets in External Fields. I. A. Akhiezer and L. N. Davydov - 13, 271 [13, 380]
Optical Orientation of Kr Atoms in the Metastable $^3P_2$ State. A. B. Gutner, R. A. Zhitnikov, and A. I. Okunevich - 13, 298 [13, 420]
Observation of Magnon-phonon Interaction in Antiferromagnetic $MnCO_3$. B. Ya. Kotyuzhanskii and L. A. Prozorova - 13, 305 [13, 430]
Indirect Transitions in Germanium in Crossed Electric and Magnetic Fields. V. I. Zemskii, G. O. Andrianov, and I. V. Mochan - 13, 344 [13, 483]
Fieldless Temperature Resonance in Ruby (T-resonance). A. A. Bugai and V. M. Maksimenko - 13, 380 [13, 533]
Observation of Phonon Cascade by the Method of Mandel'shtam-Brillouin Light Scattering in Pulsed Saturation of Paramagnetic Resonance. S. A. Al'tshuler, R. M. Valishev,

B. I. Kochelaev, and A. Kh. Khasanov - 13, 382 [13, 535]

Temperature Dependence of the Intensity of NMR of Hexagonal Cobalt. A. N. Pogorelyi and V. V. Kotov - 13, 400 [13, 561]

Nuclear Magnetic Resonance of Fe^{57} in $FeBO_3$. V. D. Doroshev, N. M. Kovtun, V. N. Seleznev, and V. M. Siryuk - 13 475 [13, 672]

Antiferromagnetic Resonance and Phase Transition in Cobalt Fluoride in a Perpendicular Magnetic Field. K. N. Kocharyan and E. G. Rudashevskii - 13, 487 [13, 688]

Population Inversion of the Levels of the Nuclear Magnetic System of Thin-film Co^{59} Following Pulsed Magnetization Reversal. N. M. Salanskii, I. A. Lyapunov, and V. K. Mal'tsev - 13, 491 [13, 694]

Influence of Laser Radiation on Instability in Yttrium Iron Garnets with Parallel Pumping. A. A. Solomko and V. I. Maistrenko - 14, 23 [14, 36]

Nuclear Magnetic Resonance in Certain Orthoferrites. N. M. Kovtun, E. E. Solov'ev, A. A. Shemyakov, and V. A. Khokhlov - 14, 68 [14, 105]

Domain-wall-connected Natural Resonance at Submillimeter Wavelength in Orthoferrites. G. A. Kraftmakher, V. V. Meriakri, and A. Ya. Chervonenkis - 14, 152 [14, 231]

Features of the Resonance of Domain-boundary Displacement in a Disk. A. I. Pil'shchikov and N. E. Syr'ev - 14, 159 [14, 242]

Observation of Bound Electron-nuclear Oscillations in Ferromagnetic Films. A. N. Pogorelyi and V. V. Kotov - 14, 202 [14, 305]

Proof of Stage-by-stage Excitation of Parametric Spin Waves. V. V. Zaushkin, V. S. L'vov, S. L. Musher, and S. S. Starobinets - 14, 206 [14, 310]

Spin Echo on Mn^{55} Nuclei in Easy-plane Antiferromagnets $CsMnF_3$ and $MnCO_3$. B. S. Dumesh - 14, 350 [14, 511]

Nuclear Spin Echo in the Antiferromagnet $RbMnF_3$. A. A. Petrov, M. P. Petrov, G. A. Smolenskii, and P. P. Syrnikov - 14, 353 [14, 514]

Electron Paramagnetic Resonance of Nickel in Synthetic Diamond. M. I. Samoilovich, G. N. Bezrukov, and V. P. Butuzov - 14, 379 [14, 551]

MOSSBAUER EFFECT

Mossbauer Spectra and the Jahn-Teller Pseudoeffect in Mn_2SbCl_6. A. Yu. Aleksandrov, S. P. Ionov, A. M. Pritchard, and V. I. Gol'danskii - 13, 8 [13, 13]

Observation of Induced Antiferromagnetism Above the Neel Point in FeF_3. V. Ya. Gamlitskii, S. S. Yakimov, V. I. Nikolaev, and N. F. Simonov - 13, 88 [13, 129]

Relaxation Phenomena in Ferrites of the System $NiFe_{2-x}Cr_xO_4$. V. I. Nikolaev, F. I. Popov, and S. S. Yakimov - 13, 100 [13, 143]

Hyperfine Magnetic Field for Sn^{119} Impurity Atoms in Ferromagnetic Terbium. A. S. Kuchma, V. P. Parfenova, and V. S. Shpinel' - 13, 135 [13, 192]

Temperature Reorientation of the Spins in Natural Pyrrhotine $Fe_{0.88}S$. N. S. Ovanesyan, V. A. Trukhtanov, G. Yu. Odinets, G. V. Novikov, and L. Cser - 13, 347 [13, 488]

Influence of Ultrasonic Excitations in Crystals on the Probability of the Mossbauer Effect. G. M. Aivazyan, Yu. M. Aivazyan, V. I. Gol'danskii, R. N. Kocharyan, E. F. Makarov, and A. R. Mkrtchyan - 13, 388 [13, 543]

Investigation of Fe_3BO_6 by the Nuclear γ Resonance Method. O. A. Bayukov, V. P. Ikonnikov, M. I. Petrov, V. N. Seleznev, R. P. Smolin, and V. V. Uskov - 14, 32 [14, 49]

Observation of Small Polarons in β-FeSi with the Aid of the Mossbauer Effect. I. A. Dubovtsev and F. A. Sidorenko - 14, 134 [14, 205]

Relaxation and Noncollinearity of the Spins of Iron in the Ferrite $Li_{0.5}Fe_{1.7}Al_{0.8}O_4$. V. I. Nikolaev, F. I. Popov, S. S. Yakimov, A. N. Goryaga, and T. Ya. Gridasova - 14, 135 [14, 208]

Temperature Dependence of the Probability of the Mossbauer Effect in Yttrium-iron Garnets. L. A. Alekseev, P. L. Gruzin, M. N. Uspenskii, and M. R. Gryaznov - 14, 192 [14, 292]

Anisotropy of the Mossbauer Effect in Antimony Single Crystals. I. A. Avenarius, R. N. Kuz'min, and A. A. Opalenko - 14, 331 [14, 484]

NONLINEAR OPTICS, OPTICAL BREAKDOWN

Self-focusing and Defocusing of Short Light Pulses in Media with Inertial Nonlinearity. V. A. Aleshkevich, S. A. Akhmanov, A. P. Sukhorukov, and A. M. Khachatryan - 13, 36 [13, 55]

Excitation of SRS Using a Low-power Laser. F. A. Korolev, V. I. Odintsov, and E. Yu. Sokolova - 13, 77 [13, 112]

Transverse Mode Locking in an Injection Laser. S. S. Vyshlov, L. P. Ivanov, A. S. Logginov, and K. Ya. Senatorov - 13, 90 [13, 131]

Self-focusing of a Vector Field. V. M. Eleonskii and V. P. Silin - 13, 117 [13, 167]

Concerning the Nature of the Nonlinearity of the NaCl Crystal. M. S. Brodin and A. M. Kamuz - 13, 119 [13, 170]

Possibility of Shortening Light Pulses in Alkali-metal Vapor. B. Ya. Zel'dovich and I. I. Sobel'man - 13, 129 [13, 182]

Effective Generation of Powerful Coherent Ultraviolet Radiation. L. V. Norinskii and V.

A. Kolosov - 13, 133 [13, 189]
Two-step Selective Photoionization of Rubidium Atoms by Laser Radiation. R. V. Ambartsumyan, V. N. Kalinin, and V. S. Letokhov - 13, 217 [13, 305]
Observation of Vector Synchronism in Generation of the Sound Harmonic of a Neodymium Laser with Single Crystals of Metanitroaniline. B. L. Davydov, M. E. Zhabotinskii, V. F. Zolin, L. G. Koreneva, and M. A. Samokhina - 13, 238 [13, 336]
Frequency Dependence of the Threshold of Optical Breakdown in Air in the Ultraviolet Band. V. I. Eremin, L. V. Norinskii, and V. A. Pryadein - 13, 307 [13, 433]
Accumulating Nonlinear Optical Effects in a Pump Field with a Broad Frequency Spectrum. S. A. Akhmanov, Yu. E. D'yakov, and A. S. Chirkin - 13, 514 [13, 724]
Nonlinear Conversion of IR Radiation into Visible Light as a New Method of Absorption Spectral Analysis. E. N. Antonov, M. A. Bol'shov, V. G. Koloshnikov, and D. N. Nikogosyan - 14, 15 [14, 23]
Spatial Self-modulation of Light as a Result of Absorption. V. M. Komissarov - 14, 43 [14, 64]
Plasma of a Light Spark in a Gas Cloud. Directed Ejection of a Plasma and Acceleration of a Fireball of a Light Spark. G. A. Askar'yan and N. M. Tarasova - 14, 58 [14, 89]
Excitation of an Explosion Wave by Initiating a Chain Reaction in a Gas Mixture with CO_2-laser Radiation. N. V. Karlov, N. A. Karpov, Yu. N. Petrov, A. M. Prokhorov, and O. M. Stel'makh - 14, 140 [14, 214]
Effect of a 400-kOe Magnetic Field on a Laser-spark Plasma. S. D. Kaitmazov, A. A. Medvedev, and A. M. Prokhorov - 14, 208 [14, 314]
New Experiments on the Formation of a Self-focusing Filament from the Focus of the Beam on the Surface of a Medium. G. A. Askar'yan, Kh. A. Diyanov, and M. Mukhamadzhanov - 14, 308 [14, 452]
Two-quantum Cooperative Frequency Conversion of Weak Light Fluxes. V. V. Ovsyankin and P. P. Feofilov - 14, 377 [14, 548]
Character of Singularity and Stochastic Phenomena in Self Focusing. V. E. Zakharov, V. V. Sobolev, and V. S. Synakh - 14, 390 [14, 564]

NUCLEAR PHYSICS, NUCLEAR REACTIONS

Polarization of Li^8 Fragments in Nuclear Reactions Produced by Slow π^- Mesons. A. T. Varfolomeev - 13, 17 [13, 27]
Possibility of Two-proton and Two-neutrino Radioactive Decay from Many-particle Isomeric States of Nuclei. V. I. Gol'danskii and L. K. Peker - 14, 412 [13, 577]
Near-threshold Singularities of the Yield of Direct Photonuclear Reactions. B. S. Ratner - 13, 447 [13, 628]
Scattering of Neutrons by Nuclei in the Region of Non-overlapping Resonances of the Nucleus. V. M. Morozov, Yu. G. Zubov, and N. S. Lebedeva - 14, 91 [14, 137]
Production of $\pi^+2\pi^-$ System of Nuclei at Small Momentum Transfers. V. G. Kirillov-Ugryumov, V. I. Levina, A. K. Ponosov, V. P. Protasov, and F. M. Sergeev - 14, 110 [14, 168]
Correlations Between Reduced Neutron and Radiative Widths on Neutron Resonances in Compound Nuclei with Odd Number of Neutrons. V. G. Solov'ev - 14, 129 [14, 194]
Excitation of Spontaneously Fissioning Isomer States ^{239}Pu and ^{243}Am in Inelastic Scattering of γ Quanta. Yu. P. Gangreskii, B. N. Markov, I. F. Kharisov, and Yu. M. Tsepenyuk - 14, 249 [14, 370]
Virtual Excitation of Nucleon Isobars in Nuclei and Reactions of Quasielastic "Knockout" of Isobars of High Energies. S. B. Gerasimov - 14, 260 [14, 385]
Coherent Production of Three Pions by π^- Mesons with Momentum 5 GeV/c on Carbon Nuclei. N. S. Amaglobeli, Yu. A. Budagov, V. B. Vinogradov, A. G. Volod'ko, V. P. Dzhelepov, V. S. Kladnitskii, Yu. F. Lomakin, G. Martinska, R. G. Salukvadze, V. B. Flyagin, D. I. Khubua, and L. Sandor - 14, 385 [14, 558]
Soft-pion Theorems and Direct Nuclear Processes. G. A. Lobov and T. A. Lomonosova - 14, 421 [14, 605]
Effect of Strong Repulsion of Compound Particles (Nuclei, Atoms) at Short Distances. A. I. Baz' - 14, 423 [14, 607]

NUCLEAR PHYSICS, NUCLEAR STRUCTURE

The New Isotope ^{92}Ru. R. Arl't, B. Bayar, N. G. Zaitseva, B. Kratsik, A. F. Novgorodov, F. Severa, and Chang Than Min - 13, 397 [13, 556]
Possibility of Two-proton and Two-neutrino Radioactive Decay from Many-particle Isomeric States of Nuclei. V. I. Gol'danskii and L. K. Peker - 13, 412 [13, 577]
Neutron Strength Functions. D. F. Zaretskii and M. G. Urin - 13, 460 [13, 646]
Nucleon Distribution in the Nuclei $Cr^{50,52,54}$, $Fe^{54,56}$, and $Ni^{58,60,62,64}$. B. A. Shilyaev, N. A. Shlyakhov, V. Ya. Golovnya, and A. P. Klyucharev - 13, 473 [13, 668]
Correlations Between Reduced Neutron and Radiative Widths on Neutron Resonances in Compound Nuclei with Odd Number of Neutrons. V. G. Selov'ev - 14, 129 [14, 194]
Giant Resonance in the Fermi-liquid Drop Model. I. A. Akhiezer, B. I. Barts, and V. T. Lazurik-El'tsufin - 14, 368 [14, 535]

A Note on the Asymptotic Condition of Nuclear-force Saturation. V. F. Demin - 14, 419 [14, 602]
Effect of Strong Repulsion of Compound Particles (Nuclei, Atoms) at Short Distances. A. I. Baz' - 14, 423 [14, 607]

PLASMA AND GAS DISCHARGE

Explosive Emission of Electrons from Metallic Needles. G. A. Mesyats and D. I. Proskurovskii - 13, 4 [13, 7]
Observation of Asymmetry of the Distribution of Turbulent Electric Fields in a Direct Discharge Plasma by Means of the Polarization in the Stark Profile of the Hα Line. E. K. Zavoiskii, Yu. G. Kalinin, V. A. Skoryupin, V. V. Shapkin, and G. V. Sholin - 13, 12 [13, 19]
Isomagnetic Discontinuity in a Collisionless Shock Wave in a Plasma. V. G. Eselevich, A. G. Es'kov, R. Kh. Kurtmullaev, and A. I. Malyutin - 13, 49 [13, 73]
Cyclotron Instability of the Outer Radiation Belt of the Earth Under Conditions of Self-modulation of Growing Waves. A. V. Gul'el'mi - 13, 57 [13, 85]
Electronic Thermal Conductivity in a Toroidal Plasma. L. A. Artsimovich - 13, 70 [13, 101]
Self-trapping of Powerful Electromagnetic Waves in a Dense Plasma. Yu. A. Brodskii, B. G. Eremin, A. G. Litvak, and Yu. A. Sakhonchik - 13, 95 [13, 136]
Limiting Plasma Pressure in a Tokamak. A. A. Galeev and R. Z. Sagdeev - 13, 113 [13, 162]
Concerning One More Method of Magnetic Energy Pumping into a Turbulent Plasma. A. I. Akhiezer, V. F. Aleksin, and V. D. Khodusov - 13, 114 [13, 164]
Self-focusing of a Vector Field. V. M. Eleonskii and V. P. Silin - 13, 117 [13, 167]
Thermal Explosion Induced in a Collisionless Plasma by a Relativistic Electron Beam. A. T. Altyntsev, A. G. Es'kov, O. A. Zolotovskii, V. I. Koroteev, R. Kh. Kurtmullaev, V. L. Masalov, and V. N. Semenov - 13, 139 [13, 197]
Experimental Investigation of the Differential Cross Section of Elastic Scattering of Excited Atoms by Electrons of a Gas-discharge Plasma. S. N. Atutov, A. G. Nikitenko, S. G. Rautian, and E. G. Saprykin - 13, 163 [13, 232]
Anomalous Dissipation of Microwave Energy in a Collisionless Plasma. K. F. Sergeichev and V. E. Trofimov - 13, 166 [13, 236]
Investigation of the Cataphoresis Effect in a Cadmium-vapor Laser. L. D. Mash, B. M. Rabkin, and B. V. Rybakov - 13, 169 [13, 240]
Possibility of Obtaining a Powerful Neutron Source by Action of a Laser Pulse on a Compound Target. Yu. V. Afanas'ev, E. M. Belenov, O. N. Krokhin, and I. A. Poluektov - 13, 182 [13, 257]
Absorption of Light by an Inhomogeneous Laser Plasma. A. V. Vinogradov and V. V. Pustovalov - 13, 226 [13, 317]
Direct Proof of the Existence of an Excited Negative C^- Ion and the Determination of the Binding Energy of the Electron in It. V. A. Oparin, R. N. Il'in, I. T. Serenkov, E. S. Solov'ev, and N. V. Fedorenko - 13, 249 [13, 351]
Mechanism of Excitation and Control of Relaxation Oscillations in a Plasma-beam System. S. M. Krivoruchko, A. S. Bakai, and E. A. Kornilov - 13, 262 [13, 369]
Experimental Investigation of the Interaction of Modulated Relativistic Beams with a Plasma. A. K. Berezin, Ya. B. Fainberg, L. I. Bolotin, A. M. Egorov, and V. A. Kiselev - 13, 354 [13, 498]
Concerning One Possibility of Increasing the Classical Coefficients for Transport Across a Strong Magnetic Field. L. Kovrizhnykh - 13, 365 [13, 513]
Resonance of Anomalous Microwave Heating of Electrons in a Magnetized Plasma. G. M. Batanov and K. A. Sarksyan - 13, 384 [13, 539]
Experiments on the Stabilization of Flute Instability with the Aid of an Integrating Feedback System. V. A. Chuyanov and E. G. Murphy - 13, 395 [13, 553]
Thresholds of Two-stream Instability of a Current in a Straight Discharge. A. I. Karchevskii and Yu. I. Strakhov - 13, 424 [13, 595]
Observation of Self-focusing of Electromagnetic Waves in a Plasma. B. G. Eremin and A. G. Litvak - 13, 430 [603]
Generation of Neutrons in a Laser CD_2 Plasma Heated by Pulses of Nanosecond Duration. N. G. Basov, V. A. Boiko, S. M. Zakharov, O. N. Krokhin, and G. V. Sklizkov - 13, 489 [13, 691]
Compression Plasma by a Growing Longitudinal Magnetic Field in the Tokamak. Yu. N. Dnestrovskii, D. P. Kostomarov, and N. L. Pavlova - 13, 493 [13, 697]
Exchange of Energy Between Collectively-interacting Beams of Positive and Negative Ions. M. D. Gabovich and A. P. Naida - 14, 1 [14, 3]
Experimental Investigation of the Nonlinear Stages of Development of Ion-acoustic Instability in a Plasma-beam Discharge. G. P. Berezina, A. K. Berezin, and V. P. Zeidlits - 14, 8 [14, 13]
Experimental Investigation of Stochastic Acceleration of Ions in an Intense Plasma-beam Discharge. G. P. Berezina, A. K. Berezin, and V. P. Zeidlits - 14, 49 [14, 77]
Plasma of a Light Spark in a Gas Cloud. Directed Ejection of a Plasma and Acceleration

of a Fireball of a Light Spark. G. A. Askar'yan and N. M. Tarasova - 14, 58 [14, 89]
Influence of Longitudinal Density Gradient on the Transformation and Emission of Transverse Waves from a Beam-plasma Discharge. A. K. Berezin, G. P. Berezina, N. S. Erokhin, S. S. Moiseev, and Ya. B. Fainberg - 14, 97 [14, 149]
Dependence of the Energy Loss from a Tokamak Plasma on the Effective Electron Collision Frequency. G. A. Bobrovskii and K. A. Razumova - 14, 99 [14, 153]
Fine Structure of the Distribution Function of Ions in the Plasma of a Strong-current z Discharge. T. S. Gosteva and V. P. Fedyakov - 14, 103 [14, 158]
Influence of High-frequency Potential of a Toroidal Electric Field on the Trapping of Charged Particles in a Closed Magnetic Trap. R. A. Demirkhanov, M. A. Stotland, Sh. V. Khil', and D. G. Baratov - 14, 122 [14, 184]
Influence of Longitudinal Streams of Charged Particles on the Diffusion of Plasma in a Stellarator. I. A. Kossyi - 14, 124 [14, 188]
Generation of Magnetosonic Oscillations in the Tokamak TO-1. N. V. Ivanov, I. A. Kovan, and E. V. Los' - 14, 138 [14, 212]
Excitation of Magnetosonic Resonance in the Tokamak Plasma. V. L. Vdovin, O. A. Zinov'ev, A. A. Ivanov, L. L. Kozorovitskii, V. V. Parail, Ya. R. Rakhimbabaev, and V. D. Rusanov - 14, 149 [14, 228]
Angular Distribution of the Ions of a Laser Plasma. Yu. A. Rykovskii, M. F. Gryukanov, V. G. Degtyarev, N. N. Degtyarenko, V. F. Elesin, I. D. Laptev, and V. N. Nevolin - 14, 157 [14, 238]
Effect of a 400-kOe Magnetic Field on a Laser-spark Plasma. S. D. Kaitmazov, A. A. Medvedev, and A. M. Prokhorov - 14, 208 [14, 314]
Injection of Laser Plasma into a Stellarator. E. D. Andryukhina, R. Blanken, G. S. Voronov, N. P. Donskaya, M. S. Rabinovich, A. D. Smirnova, O. I. Fedyanin, Yu. V. Khol'nov, and I. S. Shpigel' - 14, 210 [14, 317]
Influence of Corrugation of the Magnetic Field on the Expansion and Cooling of a Dense Plasma. G. I. Budker, V. V. Mirnov, and D. D. Ryutov - 14, 212 [14, 320]
Experimental Investigations of Containment of a Hot-electron Plasma in the "Uragan" Stellarator. A. G. Dikii, V. M. Zalkind, G. V. Zelenin, V. G. Konovalov, V. D. Kotsubanov, A. P. Litvinov, O. S. Pavlichenko, N. F. Perepelkin, N. P. Ponomarenko, V. A. Suprunenko, V. T. Tolok, and V. M. Tonkopryad - 14, 245 [14, 366]
Experimental Observation of the Amplification of Laser Radiation in the Interaction of Colliding Laser Beams in a Plasma. A. Æ. Kazakov, I. K. Krasyuk, P. P. Pashinin, and A. M. Prokhorov - 14, 280 [14, 416]
Nonlinear Variation of the Phase Velocity and Stabilization of Plasma Oscillations. I. A. Akhiezer and V. V. Angeleiko - 14, 295 [14, 434]
Fast Particles in a Parametrically Unstable Plasma. V. V. Pustovalov and V. P. Silin - 14, 299 [14, 439]
Self-action of an Electromagnetic Wave in a Dense Collisionless Plasma. G. M. Batanov and V. A. Silin - 14, 303 [14, 445]
Nonlinear Effects in the Propagation of Monochromatic VLF Waves (Helicons) in the Magnetosphere. N. I. Bud'ko, V. I. Karpman, and O. A. Pokhotelov - 14, 320 [14, 469]
High-frequency Electromagnetic Field in a Plasma Cavity. B. A. Trubnikov - 14, 322 [14, 472]
Modulation of Spectrum and Amplitudes of Low-frequency Signal in the Magnetosphere Plasma. Ya. I. Likhter, O. A. Molchanov, and V. M. Chmyrev - 14, 325 [14, 475]
Electromagnetic Excitation with Polarization Opposite to the Helicon in an Uncompensated Magnetoactive Plasma. A. P. Protogenov and V. Ya. Demikhovskii - 14, 356 [14, 518]
Experimental Observation of Electronic Shock Waves in a Collisionless Plasma. A. A. Ivanov, L. L. Kozorovitskii, V. D. Rusanov, R. Z. Sagdeev, and D. N. Sobolenko - 14, 412 [14, 593]

QUANTUM FIELD THEORY

WKB Method for a Strong Coulomb Field. V. P. Krainov - 13, 255 [13, 359]
Extension of the Algebra of Poincare Group Generators and Violation of P Invariance. Yu. A. Gol'fand and E. P. Likhtman - 13, 323 [13, 452]

QUANTUM GENERATORS

Q Switching of a Ruby Laser by Dye Vapors. V. P. Klochkov, V. L. Bogdanov, and B. S. Neporent - 13, 31 [13, 47]
Induced Radiation of $Y_3Al_3O_{12}$-$(Nd)^{3+}$ Excited by an Electron Beam. Yu. K. Voron'ko, E. L. Nolle, V. V. Osiko, and M. I. Timoshechkin - 13, 86 [13, 125]
Transverse Mode Locking in an Injection Laser. S. S. Vyshlov, L. P. Ivanov, A. S. Logginov, and K. Ya. Senatorov - 13, 90 [13, 131]
Effective Generation of Powerful Coherent Ultraviolet Radiation. L. V. Norinskii and V. A. Kolosov - 13, 133 [13, 189]
Feasibility of an Adsorption-gasdynamic Laser. V. K. Konyukhov and A. M. Prokhorov - 13, 153 [13, 216]
Investigation of the Cataphoresis Effect in a

Cadmium-vapor Laser. L. D. Mash, B. M. Rabkin, and B. V. Rybakov - 13, 169 [13, 240]

Possibility of Obtaining a Powerful Neutron Source by Action of a Laser Pulse on a Compound Target. Yu. V. Afanas'ev, E. M. Belenov, O. N. Krokhin, and I. A. Poluektov - 13, 182 [13, 257]

Possibility of Producing Inverted Population in Atomic Beams by Charge Exchange of Protons with Atoms. L. P. Presnyakov and V. P. Shevel'ko - 13, 203 [13, 286]

Absorption of Light by an Inhomogeneous Laser Plasma. A. V. Vinogradov and V. V. Pustovalov - 13, 226 [13, 317]

Observation of Vector Synchronism in Generation of the Sound Harmonic of a Neodymium Laser with Single Crystals of Metanitroaniline. B. L. Davydov, M. E. Zhabotinskii, V. F. Zolin, L. G. Koreneva, and M. A. Samokhina - 13, 238 [13, 336]

Resonatorless Parametric Light Generator Using an α-HIO_3 Crystal. A. I. Kovrigin and P. V. Nikles - 13, 313 [13, 440]

Nonequilibrium Dissociation of a Molecular Gas Under the Influence of Resonant Laser Radiation, with Allowance for Vibration-vibration Collisions. Yu. V. Afanas'ev, E. M. Belenov, E. P. Markin, and I. A. Poluektov - 13, 331 [13, 462]

Excitation of Sound When a Surface Layer of a Liquid Absorbs a Laser Pulse. F. V. Bunkin, N. V. Karlov, V. M. Komissarov, and G. P. Kuz'min - 13, 341 [13, 479]

CW Chemical Laser Using DF-CO_2. N. G. Basov, V. V. Gromov, E. L. Kosheleev, E. P. Markin, A. N. Oraevskii, D. S. Shapovalov, and V. A. Shcheglov - 13, 352 [13, 496]

Investigation of the Character of the Emission of a Neodymium-glass Laser with a Passive Shutter Having a Finite Relaxation Time. V. I. Malyshev, A. A. Sychev, and V. A. Babenko - 13, 419 [13, 588]

Optical Frequency Standard with a Beam Type Absorbing Cell. Yu. M. Malyshev, V. M. Tatarenkov, and A. N. Titov - 13, 422 [13, 592]

Generation in the Ultraviolet with Frequency Tuning, Using a Paraterphenyl Solution and Excitation with a Flash Lamp. Yu. A. Yanait, G. A. Abakumov, G. I. Kromskii, A. P. Simonov, V. V. Fadeev, and R. V. Khokhlov - 13, 438 [14, 616]

Investigation of Reactions of Excited Iodine Atoms with the Aid of a Photodissociation Laser. T. L. Andreeva, S. V. Kuznetsova, A. I. Maslov, I. I. Sobel'man, and V. N. Sorokin - 13, 449 [13, 631]

Generation of Neutrons in a Laser CD_2 Plasma Heated by Pulses of Nanosecond Duration. N. G. Basov, V. A. Boiko, S. M. Zakharov, O. N. Krokhin, and G. V. Sklizkov - 13, 489 [13, 691]

Narrow Molecular Resonances Upon Saturation of Absorption in Separated Light Beams. O. N. Kompanets and V. S. Letokhov - 14, 12 [14, 20]

Influence of Laser Radiation on Instability in Yttrium-iron Garnets with Parallel Pumping. A. A. Solomko and V. I. Maistrenko - 14, 23 [14, 36]

Detonation Gasdynamic Laser. M. S. Dzhidzhoev, V. V. Korolev, V. N. Markov, V. G. Platonenko, and R. V. Khokhlov - 14, 47 [14, 73]

Nonstationary Generation of Solutions of Organic Dyes in Picosecond Optical Pumping. I. L. Gandel'man, E. T. Sapa, E. A. Tikhonov, and M. T. Shpak - 14, 53 [14, 82]

Pulsed Narrowing of p-n Junctions in Two-photon Excitation. V. A. Kovarskii, N. A. Ferdman, A. V. Simashkevich, and P. A. Gashin - 14, 55 [14, 85]

Possibility of Producing an Inverted Medium for Lasers by Means of an Explosion. V. M. Marchenko and A. M. Prokhorov - 14, 76 [14, 116]

New Mechanism of Coherent-radiation Generation in the Visible Region of the Spectrum in Ionized Oxygen and Nitrogen. N. P. Gadetskii, Yu. V. Tkach, V. V. Slezov, Ya. Ya. Bessarab, and I. I. Magda - 14, 101 [14, 155]

Destruction of Transparent Dielectrics by Laser Radiation. V. I. Makshantsev, R. K. Leonov, and P. A. Yampol'skii - 14, 115 [14, 175]

Use of Lasers for Selective Breaking of Chemical Bonds. N. V. Karlov, Yu. B. Konev, and A. M. Prokhorov - 14, 117 [14, 178]

Excitation of an Explosion Wave by Initiating a Chain Reaction in a Gas Mixture with CO_2-laser Radiation. N. V. Karlov, N. A. Karpov, Yu. N. Petrov, A. M. Prokhorov, and O. M. Stel'makh - 14, 140 [14, 214]

Interaction of Three Modes of Gas Laser in the Locking Region. S. A. Gonchukov, O. E. Porodnikov, E. D. Protsenko, and V. A. Semchishen - 14, 155 [14, 235]

Angular Distribution of the Ions of a Laser Plasma. Yu. A. Bykovskii, M. F. Gryukanov, V. G. Degtyarev, N. N. Degtyarenko, V. F. Elesin, I. D. Laptev, and V. N. Nevolin - 14, 157 [14, 238]

Dynamics of Clearing Clouds with a Laser Beam. A. P. Sukhorukov, R. V. Khokhlov, and E. N. Shumilov - 14, 161 [14, 245]

Stimulation of Chemical Processes by Infrared Laser Radiation. N. G. Basov, E. P. Markin, A. N. Oraevskii, A. V. Pankratov, and A. N. Skachkov - 14, 165 [14, 251]

Sonoluminescence Following Focusing of Laser Radiation into a Liquid. A. A. Buzukov and V. S. Teslenko - 14, 189 [14, 286]

Effect of a 400-kOe Magnetic Field on a Laser-spark Plasma. S. D. Kaitmazov, A. A. Med-

vedev, and A. M. Prokhorov - 14, 208 [14, 314]
Injection of Laser Plasma into a Stellarator. E. D. Andryukhina, R. Blanken, G. S. Voronov, N. P. Donskaya, M. S. Rabinovich, A. D. Smirnova, O. I. Fedyanin, Yu. V. Khl'nov, and I. S. Shpigel' - 14, 210 [14, 317]
Intense Fluorescence from the Second Excited State of Molecular Solutions of Organic Dyes. G. G. Dyadyusha, O. V. Przhonskaya, E. A. Tikhonov, and M. T. Shpak - 14, 220 [14, 330]
Temperature Pulsations and Multifrequency Generation of $YAlO_3:Nd^{3+}$. A. A. Kaminskii - 14, 222 [14, 333]
Experimental Observation of the Amplification of Laser Radiation in the Interaction of Colliding Laser Beams in a Plasma. A. E. Kazakov, I. K. Krasyuk, P. P. Pashinin, and A. M. Prokhorov - 14, 280 [14, 416]
Gas Lasers at High Pressures. N. G. Basov, E. M. Belenov, V. A. Danilychev, O. M. Kerimov, I. B. Kovsh, and A. F. Suchkov - 14, 285 [14, 421]
Population Inversion in Solids by Impact Excitation of Impurities. N. A. Vlasenko and Zh. A. Pukhlii - 14, 306 [14, 449]
Method of Reducing the Relaxation Time of a Passive Neodymium-glass Laser Shutter. V. A. Babenko, V. I. Malyshev, and A. A. Sychev - 14, 314 [14, 461]
Induced Emission on a Number of Transitions of the Rubidium Atoms Following Two-photon Excitation. A. M. Bonch-Bruevich, V. A. Khodovoi, and V. V. Khromov - 14, 333 [14, 487]
Single-frequency Brillouin Laser Using Methane. V. I. Kovalev, V. I. Popovichev, V. V. Ragul'skii, and F. S. Faizullov - 14, 344 [14, 503]
Possibility of Producing Tunable Infrared Gas Lasers. N. G. Basov, E. M. Belenev, V. A. Danilychev, and A. F. Suchkov - 14, 375 [14, 545]
Optical Pumping and Dissociation of Rubidium Molecules by a Laser Pulse. N. N. Kostin, V. A. Khodovoid, V. V. Khromov, and N. A. Chigir' - 14, 410 [14, 589]

RADIOPHYSICS AND ELECTRONICS

Collective Effects in Discretely-electronic Beams. L. A. Rivlin - 13, 257 [13, 362]

SCATTERING AND ABSORPTION IN MATTER

Concerning the Selection Rules in Mandel'shtam-Brillouin Scattering in Crystals. O. V. Kachalov - 13, 75 [13, 109]
Excitation of SRS Using a Low-power Laser. F. A. Korolev, V. I. Odintsov, and E. Yu. Sokolova - 13, 77 [13, 112]
Coherent Radiation of Charged Particles Channelled in a Crystal. V. A. Belyakov - 13, 179 [13, 254]
Light Scattering by Drops of the Condensed Phase of Nonequilibrium Carriers in Germanium. Ya. E. Pokrovskii and K. I. Svistunova - 13, 212 [13, 297]
Suppression of (n, γ) Reaction in Resonant Scattering of Neutrons by a Perfect CdS Crystal. S. Sh. Shil'shtein, V. A. Somenkov, and V. P. Dokashenko - 13, 214 [13, 301]
Amplification of High-frequency Phonons in the Field of an Electromagnetic Wave. E. M. Epshtein - 13, 364 [13, 511]
Observation of Phonon Cascade by the Method of Mandel'shtam-Brillouin Light Scattering in Pulsed Saturation of Paramagnetic Resonance. S. A. Al'tshuler, R. M. Valishev, B. I. Kochelaev, and A. Kh. Khasanov - 13, 382 [13, 535]
Features of Scattering of Light by Hypersonic Waves in Uniaxial Crystals. V. V. Lemanov and O. V. Shakin - 13, 392 [13, 549]
Fine Structure of Rayleigh Line in Sapphire Crystal. V. F. Kitaeva and I. L. Chistyi - 13, 435 [13, 611]
Coherent Bremsstrahlung of Electrons and Positrons of Ultrahigh Energy in Crystals. A. I. Akhiezer, P. I. Fomin, and N. F. Shul'ga - 13, 506 [13, 713]
Distribution of Energy Losses for Heavy Positive Particles in a Single Crystal. N. P. Kalashnikov, V. S. Rmizovich, and M. I. Ryazanov - 13, 508 [13, 715]
Mechanism of Acceleration of Ions on the Front of Ionization of a Gas by a Relativistic Electron Beam. S. E. Rosinskii, A. A. Rukhadze, and V. G. Rukhlin - 14, 34 [14, 53]
Spatial Self-modulation of Light as a Result of Absorption. V. M. Komissarov - 14, 43 [14, 64]
Experimental Observation of Rotation of the Plane of Linear Polarization of γ Quanta in Magnetized Ferromagnets. V. M. Lobashev, L. A. Popeko, L. M. Smotritskii, A. P. Serebrov, and E. A. Kolomenskii - 14, 251 [14, 373]
"Transition Acceleration" of a Charged Particle Passing through a Boundary of an Inverted Dielectric. V. P. Gavrilov and A. A. Kolomenskii - 14, 431 [14, 617]

SHOCK WAVES: Physical Methods of Acting on Chemical Reactions

Influence of Magnetic Field on the Rate of Photooxidation of Aromatic Hydrocarbons. E. L. Frankevich and I. A. Sokolik - 14, 401 [14 577]

SOLID STATE

Crystalline state

Fine Crystalline and Magnetic Structures of

Iron-nickel Invars. V. I. Goman'kov, I. M. Puzei, V. N. Sigaev, E. V. Kozis, and E. I. Mal'tsev - 13, 428 [13, 600]

Direct Observation of Fluctuations of Deuterium Distribution in $(Nb_{0.33}Ti_{0.66})D_{0.33}$. N. F. Miron, V. I. Shcherbak, L. E. Fykin, V. N. Bykov, V. A. Levdik, and S. P. Solov'ev - 13, 485 [13, 686]

Temperature Stability of the Metallic Modification of Hydrogen. E. I. Estrin - 13, 510 [13, 719]

Fractionization of Carbon Isotopes in the Synthesis of Diamonds from Gas. D. V. Fedoseev, E. M. Galimov, V. P. Varnin, V. S. Prokhorov, and B. V. Deryagin - 14, 51 [14, 80]

Dielectrics

Electrogyration Effects in Quartz Crystals. O. G. Blokh - 13, 81 [13, 118]

Concerning the Nature of the Nonlinearity of The NaCl Crystal. M. S. Brodin and A. M. Kamuz - 13, 119 [13, 170]

Features of Scattering of Light by Hypersonic Waves in Uniaxial Crystals. V. V. Lemanov and O. V. Shakin - 13, 392 [13, 549]

Repopulation of Highly-excited Vibrational Levels in a Cold Lattice. Ya. B. Zel'dovich and A. A. Ovchinnikov - 13, 452 [13, 636]

Electric Properties

Electric Properties of Linear Conducting Chains of Pt Atoms in $K_2Pt(CN)_4Br_{0.3}\cdot 2.3H_2O$. A. S. Berenblyum, L. I. Buravov, M. L. Khideke', I. F. Shchegolev, and E. V. Yakimov - 13, 440 [13, 619]

Ferroelectrics

Possibility of Generating Infrared Radiation by Polarization Reversal of a Ferroelectric. Yu. I. Balkarei and E. V. Chenskii - 13, 190 [13, 266]

Anomalous Absorption of Sound Near the Ferroelectric Phase Transition. V. I. Samulionis and V. F. Kunigelis - 13, 207 [13, 291]

Instability of Spin Waves in Ferroelectric Antiferromagnets in External Fields. I. A. Akhiezer and L. N. Davydov - 13, 271 [13, 380]

Polarization Echo in the Ferroelectric Single Crystal KH_2PO_4. U. Kh. Kopvillem, B. P. Smolyakov, and R. Z. Sharipov - 13, 398 [13, 558]

Opposing Ferroelectric Domains in SbSI Single Crystals. A. G. Zhdan, E. V. Chenskii, E. S. Artobolevskaya, R. S. Govzdover, E. I. Rau, and V. I. Petrov - 14, 105 [14, 161]

Magnetic Properties

Inhomogeneous Magnetization of Nickel Near the Curie Point. G. M. Drabkin, A. I. Okorokov, V. I. Volkov, and A. F. Shchebetov - 13, 1 [13, 3]

Mossbauer Spectra and the Jahn-Teller Pseudoeffect in M_2SbCl_6. A. Yu. Aleksandrov, S. P. Ionov, A. M. Pritchard, and V. I. Gol'danskii - 13, 8 [13, 13]

Slowing Down of Dislocations in Ferromagnets. G. I. Babkin and V. Ya. Kravchenko - 13, 19 [13, 30]

Magnetic Birefringence in Antiferromagnetic MnF_2. A. S. Borovik-Romanov, N. M. Kreines, and M. A. Talalaev - 13, 54 [13, 80]

Influence of Rotation of the Spontaneous-magnetization Vector on the Hall Effect. E. P. Svirina - 13, 79 [13, 115]

Observation of Induced Antiferromagnetism Above the Neel Point in FeF_3. V. Ya. Gamlitskii, S. S. Yakimov, V. I. Nikolaev, and N. F. Simonov - 13, 88 [13, 129]

Relaxation Phenomena in Ferrites of the System $NiFe_{2-x}Cr_xO_4$. V. I. Nikolaev, F. I. Popov, and S. S. Yakimov - 13, 100 [13, 143]

Hyperfine Magnetic Field for Sn^{119} Impurity Atoms in Ferromagnetic Terbium. A. S. Kuchma, V. P. Parfenova, and V. S. Shpinel' - 13, 135 [13, 192]

Planar Model of a Branched Domain Structure of a Cubic Ferromagnet. I. A. Privorotskii - 13, 158 [13, 222]

Spin Mandel'shtam-Brillouin Effect. V. I. Zubkov, Ya. A. Monosov, and V. I. Shcheglov - 13, 161 [13, 229]

Instability of Spin Waves in Ferroelectric Antiferromagnets in External Fields. I. A. Akhiezer and L. N. Davydov - 13, 271 [13, 380]

Acoustic Nuclear Effect-solide in Lithium Fluoride. G. L. Antokol'skii, L. N. Fershtat, and V. A. Shutilov - 13, 286 [13, 404]

Observation of Magnon-phonon Interaction in Antiferromagnetic $MnCO_3$. B. Ya. Kotyuzhanskii and L. A. Prozorova - 13, 305 [13, 430]

Temperature Reorientation of the Spins in Natural Pyrrhotine $Fe_{0.88}S$. N. S. Ovanesyan, V. A. Trukhtanov, G. Yu. Odinets, G. V. Novikov, and L. Cser - 13, 347 [13, 488]

Magnetooptical Properties of the Bielectron in the BiI_3 Crystal. E. F. Gross, I. N. Ural'tsev, and R. I. Shekhmamet'ev - 13, 357 [13, 503]

Temperature Dependence of the Intensity of NMR of Hexagonal Cobalt. A. N. Pogorelyi and V. V. Kotov - 13, 400 [13, 561]

Fine Crystalline and Magnetic Structures of Iron-nickel Invars. V. I. Goman'kov, I. M. Puzei, V. N. Sigaev, E. V. Kozis, and E. I. Mal'tsev - 13, 428 [13, 600]

Possibility of Orienting Electron Spins with Current. M. I. D'yakonov and V. I. Perel' - 13, 467 [13, 657]

Nuclear Magnetic Resonance of Fe^{57} in $FeBO_3$

Single Crystals. V. D. Doroshev, N. M. Kovtun, V. N. Seleznev, and V. M. Siryuk - 13, 475 [13, 672]

Antiferromagnetic Resonance and Phase Transition in Cobalt Fluoride in a Perpendicular Magnetic Field. K. N. Kocharyan and E. G. Rudashevskii - 13, 487 [13, 688]

Magnetic Anomalies of the Thermal Expansion of Chromium. V. A. Gordienko and V. I. Nikolaev - 14, 3 [14, 6]

Influence of Laser Radiation on Instability in Yttrium-iron Garnets with Parallel Pumping. A. A. Solomko and V. I. Maistrenko - 14, 23 [14, 36]

Investigation of Fe_3BO_6 by the Nuclear γ Resonance Method. O. A. Bayukov, V. P. Ikonnikov, M. I. Petrov, V. N. Seleznev, R. P. Smolin, and V. V. Uskov - 14, 32 [14, 49]

Curie Temperature and Susceptibility of an Amorphous Heisenberg Ferromagnet (High-temperature Expansion). J. Schreiber and K. Handrich - 14, 37 [14, 57]

Nuclear Magnetic Resonance in Certain Orthoferrites. N. M. Kovtun, E. E. Solov'ev, A. A. Shemyakov, and V. A. Khokhlov - 14, 68 [14, 105]

Relaxation and Noncollinearity of the Spins of Iron in the Ferrite $Li_{0.5}Fe_{1.7}Al_{0.8}O_4$. V. I. Nikolaev, F. I. Popov, S. S. Yakimov, A. N. Goryaga, and T. Ya. Gridasova - 14, 135 [14, 208]

Layered Compounds of $NiCl_2$ with Graphite as Two-dimensional Heisenberg Ferromagnets. Yu. S. Karimov, M. E. Vol'pin, and Yu. N. Novikov - 14, 142 [14, 217]

Investigation of Metamagnetic Transition in $FeCl_2$ with the Aid of Polarized Neutrons. V. A. Trunov, A. Z. Yagud, A. I. Egorov, R. P. Dmitriev, and V. A. Ul'yanov - 14, 146 [14, 223]

Domain-wall-connected Natural Resonance at Submillimeter Wavelength in Orthoferrites. G. A. Kraftmakher, V. V. Meriakri, and A. Ya. Chervonenkis - 14, 152 [14, 231]

Features of the Resonance of Domain-boundary Displacement in a Disk. A. I. Pil'shchikov and N. E. Syr'ev - 14, 159 [14, 242]

Temperature Dependence of the Probability of the Mossbauer Effect in Yttrium-iron Garnets. L. A. Alekseev, P. L. Gruzin, M. N. Uspenskii and M. R. Gryaznov - 14, 192 [14, 292]

Proof of Stage-by-stage Excitation of Parametric Spin Waves. V. V. Zaushkin, V. S. L'vov, S. E. Musher, and S. S. Starobinets - 14, 206 [14, 310]

Experimental Observation of Rotation of the Plane of Linear Polarization of γ Quanta in Magnetized Ferromagnets. V. M. Lobashev, L. A. Popeko, L. M. Smotritskii, A. P. Serebrov, and E. A. Kolomenskii - 14, 251 [14, 373]

Obtaining the "Single-Q" State of Chromium by Action of Low Temperatures in the Presence of a Magnetic Field. V. S. Golovkin, V. N. Bykov, and V. A. Levdik - 14, 257 [14, 382]

Antiferromagnetism in Invar Alloys. V. L. Sedov - 14, 341 [14, 499]

Investigation of Spin Reorientation in Single-crystal $TmFeO_3$ by the NMR Method. V. D. Doroshev, N. M. Kovtun, E. E. Solov'ev, A. Ya. Chervonenkis, and A. A. Shemyakov - 14, 343 [14, 501]

Spin Echo on Mn^{55} Nuclei in Easy-plane Antiferromagnets $CsMnF_3$ and $MnCO_3$. B. S. Dumesh - 14, 350 [14, 511]

Nuclear Spin Echo in the Antiferromagnet $RbMnF_3$. A. A. Petrov, M. P. Petrov, G. A. Smolenskii, and P. P. Syrnikov - 14, 353 [14, 514]

Mechanical Properties

Influence of Superconducting Transition on the Internal Friction of Tantalum. V. S. Postnikov, I. V. Zolotukhin, and V. E. Miloshenko - 13, 6 [13, 10]

Slowing Down of Dislocations in Ferromagnets. G. I. Babkin and V. Ya. Kravchenko - 13, 19 [13, 30]

Crowdion Mechanism of Plastic Deformation. Zh. I. Dranova, A. M. D'yachenko, and I. M. Mikhailovskii - 13, 27 [13, 40]

Luminescence of the Local Center of a Crystal in the Presence of Uniaxial Deformation. E. S. Medvedev - 13, 39 [13, 59]

Investigation of Local Changes of the Electric Properties of Silicon Under the Influence of Individual Dislocations. S. Kh. Mil'shtein and V. I. Nikitenko - 13, 233 [13, 329]

Investigation of the Temporal Characteristics of Deformation Luminescence. V. V. Korshunov, F. D. Senchukov, and S. Z. Shmurak - 13, 289 [13, 408]

Plasticity of Reactor-irradiated LiF Crystals. E. L. Andronikashvili, N. G. Politov, I. M. Paperno, and A. K. Razmadze - 13, 310 [13, 436]

Influence of Twins on the Magnetoresistance of Sb. Yu. A. Bogod, B. I. Verkin, V. B. Krasovitskii, and S. V. Tsivinskii - 13, 349 [13, 491]

Infrared Quenching of the Photoplastic Effect in Cadmium Sulfide. Yu. A. Osip'yan, V. F. Petrenko, and I. B. Savchenko - 13, 442 [13, 622]

Low-temperature Quenching of the Photochemical Effect in γ-irradiated NaCl Crystals. G. A. Ermakov and E. M. Nadgornyi - 14, 29 [14, 45]

Estimate of Charge Density on Dislocations in NaCl Crystals. N. V. Zagoruiko, V. I. Savenko, and N. N. Bekkauer - 14, 186 [14, 283]

Metals

Inhomogeneous Magnetization of Nickel Near the Curie Point. G. M. Drabkin, A. I. Okorokov, V. I. Volkov, and A. F. Shchebetov - 13, 1 [13, 3]

Superconductivity of Te at High Pressures. M. A. Il'ina and E. S. Itskevich - 13, 15 [13, 23]

Influence of Rotation of the Spontaneous-magnetization Vector on the Hall Effect - E. P. Svirina - 13, 79 [13, 115]

Formation of an Exciton Dielectric Phase in a Magnetic Field in a Metal-semiconductor Transition. N. B. Brandt and S. M. Chudinov - 13, 102 [13, 146]

Electromagnetic Waves Near Hole Cyclotron Resonance in Bismuth. V. P. Naberezhnykh, D. E. Zherebchevskii, and V. L. Mel'nik - 13, 105 [13, 150]

Electrostatic Energy of a Disordered Alloy. G. L. Krasko - 13, 155 [13, 218]

Surface Conductivity in Tin in a Strong Magnetic Field. Yu. P. Gaidukov and A. P. Perov - 13, 219 [13, 307]

Landau Quantum Oscillations of the Surface Resistance of MoO_2. E. P. Vol'skii and V. M. Teplinskii - 13, 340 [13, 477]

Influence of Twins on the Magnetoresistance of Sb. Yu. A. Bogod, B. I. Verkin, V. B. Krasovitskii, and S. V. Tsivinskii - 13, 349 [13, 491]

Influence of a Strong Electric Field on the Temperature of the Dielectric-metal Phase Transition in $(V_{0.91}Cr_{0.09})_2O_3$. V. N. Andreev, B. A. Tallerchik, and F. A. Chudnovskii - 13, 376 [13, 527]

Excitation of Ultrasonic Waves by Passage of Fast Electrons Through a Metal. I. A. Borshkovskii, V. D. Volovik, I. A. Grishaev, G. P. Dubovik, I. I. Zalyubovskii, and V. V. Petrenko - 13, 390 [13, 546]

Electromagnetic Generation of Sound in Bi. G. I. Babkin, V. T. Dolgopolov, and V. Ya. Kravchenko - 13, 402 [13, 563]

Low Temperature Electric Conductivity of Metals with Open Fermi Surfaces. R. N. Rurzhi and A. I. Kopeliovich - 13, 406 [13, 569]

Possibility of Experimentally Measuring the Electromagnetic Fields Produced in a Metal in Which Transverse Ultrasonic Waves Propagate. M. Leontovich and V. Khait - 13, 414 [13, 579]

Possibility of Orienting Electron Spins with Current. M. I. D'yakonov and V. I. Perel' - 13, 467 [13, 657]

Temperature Stability of the Metallic Modification of Hydrogen. E. I. Estrin - 13, 510 [13, 719]

Thermal Conductivity of Bismuth at Low Temperatures. V. N. Kopylov and L. P. Mezhov-Deglin - 14, 21 [14, 32]

Magnetic Breakdown Giant Oscillations of Absorption of Sound by Metals. A. A. Slutskin and S. A. Sokolov - 14, 40 [14, 60]

Magnetoresistance of Polycrystals and Its Size Effect. Yu. A. Dreizin and A. M. Dykhne - 14, 66 [14, 101]

Concerning Magnetic Breakdown in Beryllium. N. E. Alekseevskii, P. Djir, and V. I. Nizhankovskii - 14, 169 [14, 256]

Nature of the Electric Conductivity of Metals in the Transcritical State. V. A. Alekseev - 14, 195 [14, 295]

Spin Waves in Nonferromagnetic Metals with Open Fermi Surfaces. G. P. Alodzhants and V. P. Silin - 14, 236 [14, 351]

Dielectric-metal Transition in the System of Excitons in Germanium. V. M. Asnin and A. A. Rogachev - 14, 338 [14, 494]

Contribution to the Theory of the Optoelectric Effect in a Magnetic Field. L. E. Gurevich and O. A. Mezrin - 14, 387 [14, 562]

Surface Magnetic Susceptibility of Metals. S. S. Nedorezov - 14, 415 [14, 597]

Optical Properties

Measurement of the Lifetime and of the Spin-relaxation Time of Electrons in Semiconductors by the Optical-orientation Method. D. Z. Garbuzov, A. I. Ekimov, and V. I. Safarov - 13, 24 [13, 36]

Magnetic Birefringence in Antiferromagnetic MnF_2. A. S. Borovik-Romanov, N. M. Kreines, and M. A. Talalaev - 13, 54 [13, 80]

Concerning the Selectrion Rules in Mandel'shtam-Brillouin Scattering in Crystals. O. V. Kachalov - 13, 75 [13, 109]

Electrogyration Effects in Quartz Crystals. O. G. Blokh - 13, 81 [13, 118]

Electro-optical Kerr Effect on Hot Electrons in n-InSb. L. E. Vorob'ev, V. S. Komissarov, V. I. Stafeev, and A. Yu. Ushakov - 13, 98 [13, 140]

Interaction of an Ultrashort Neodymium-laser Pulse with GaAs. T. L. Gvardzhaladze, A. Z. Grasyuk, I. G. Zubarev, P. G. Kryukov, and O. B. Shatberashvili - 13, 111 [13, 159]

Effect of Optical Orientation of Electron Spins in a GaAs Crystal. B. P. Zakharchenya, V. G. Fleisher, R. I. Dzhioev, Yu. P. Veshchunov, and I. B. Rusanov - 13, 137 [13, 195]

Feasibility of Optical Orientation of Equilibrium Electrons in Semiconductors. M. I. D'yakonov and V. I. Perel' - 13, 144 [13, 206]

Observation of Optical Orientation of Equilibrium Electrons in n-Type Semiconductors. A. I. Ekimov and V. I. Safarov - 13, 177 [13, 251]

Role of Exciton-phonon Complexes in the Interband Magnetooptical Anomaly. V. I. Mel'nikov,

E. I. Rashba, and V. M. Edel'shtein - 13, 192 [13, 269]
Inverse Hydrogenlike Series in Optical Excitation of Light Charged Particles in a Bismuth Iodide (BiI_3) Crystal. E. F. Gross, V. I. Perel', and R. I. Shekhmamet'ev - 13, 229 [13, 320]
New Data on the Structure of Optical Absorption in the Region of Isotopic-impurity Exciton States of Naphthalene Crystals. V. L. Broude and A. V. Leiderman - 13, 302 [13, 426]
Possible Instability, Due to Triple Recombination, of the States of a Semiconductor Illuminated by Intense Light. N. N. Degtyarenko and V. F. Elesin - 13, 326 [13, 456]
Magnetooptical Properties of the Bielectron in the BiI_3 Crystal. E. F. Gross, I. N. Ural'tsev, and R. I. Shekhmamet'ev - 13, 357 [13, 503]
Fine Structure of Rayleigh Line in Sapphire Crystal. V. F. Kitaeva and L. I. Chistyi - 13, 435 [13, 611]
Experimental Observation of Nonlinear Optical Activity. D. V. Vlasov and V. P. Zaitsev - 14, 112 [14, 171]
Biexciton in Cu_2O Crystal. O. I. L'vov and P. P. Pavinskii - 14, 167 [14, 253]
Population Inversion in Solids by Impact Excitation of Impurities. N. A. Vlasenko and Zh. A. Pukhlii - 14, 306 [14, 449]

Phonon Spectra

Concerning the Selection Rules in Mandel'shtam-Brillouin Scattering in Crystals. O. V. Kachalov - 13, 75 [13, 109]
Amplification of High-frequency Phonons in the Field of an Electromagnetic Wave. E. M. Epshtein - 13, 364 [13, 511]
Observation of Phonon Cascade by the Method of Mandel'shtam-Brillouin Light Scattering in Pulsed Saturation of Paramagnetic Resonance. S. A. Al'tshuler, R. M. Valishev, B. I. Kochelaev, and A. Kh. Khasanov - 13, 382 [13, 535]
Anomalies of Thermal Emf in Phonon-phonon Dragging. V. A. Kozlov and E. L. Nagaev - 13, 455 [13, 639]

Semiconductors

Measurement of the Lifetime and of the Spin-relaxation Time of Electrons in Semiconductors by the Optical-orientation Method. D. Z. Garbuzov, A. I. Ekimov, and V. I. Safarov - 13, 24 [13, 36]
Current Oscillations in Amorphous Semiconductors. V. I. Zaliva and V. P. Zakharov - 13, 93 [13, 133]
Electro-optical Kerr Effect on Hot Electrons in n-InSb. L. E. Vorob'ev, V. S. Komissarov, V. I. Stafeev, and A. Yu. Ushakov - 13, 98 [13, 140]
Formation of an Exciton Dielectric Phase in a Magnetic Field in a Metal-semiconductor Transition. N. B. Brandt and S. M. Chudinov - 13, 102 [13, 146]
Activation Conductivity of Almost Fully Compensated n-Germanium. I. S. Shlimak and V. V. Emtsev - 13, 107 [13, 153]
Interaction of an Ultrashort Neodymium-laser Pulse with GaAs. T. L. Gvardzhaladze, A. Z. Grasyu, I. G. Zubarev, P. G. Kryukov, and O. B. Shatberashvili - 13, 111 [13, 159]
Effect of Optical Orientation of Electron Spins in a GaAs Crystal. B. P. Zakharchenya, V. G. Fleisher, R. I. Dzhioev, Yu. P. Veshchunov, and I. B. Rusanov - 13, 137 [13, 195]
Feasibility of Optical Orientation of Equilibrium Electrons in Semiconductors. M. I. D'yakonov and V. I. Perel' - 13, 144 [13, 206]
Hall Effect in Semiconductors in a Strong Electric Field. V. I. Pustovoit and Yu. P. Mukhortov - 13, 149 [13, 211]
Observation of Optical Orientation of Equilibrium Electrons in n-Type Semiconductors. A. I. Ekimov and V. I. Safarov - 13, 177 [13, 251]
Cold Electrons in Semiconductors. S. I. Shevchenko - 13, 187 [13, 264]
Role of Exciton-phonon Complexes in the Interband Magnetooptical Anomaly. V. I. Mel'nikov, E. I. Rashba, and V. M. Edel'shtein - 13, 192 [13, 269]
Nonlinear Effects in the Propagation of Hypersonic Waves in Indium Antimonide. S. N. Ivanov, I. M. Kotelyanskii, G. D. Mansfel'd, and E. N. Khazanov - 13, 201 [13, 283]
Light Scattering by Drops of the Condensed Phase of Nonequilibrium Carriers in Germanium. Ya. E. Pokrovskii and K. I. Svistunova - 13, 212 [13, 297]
Inverse Hydrogenlike Series in Optical Excitation of Light Charged Particles in a Bismuth Iodide (BiI_3) Crystal. E. F. Gross, V. I. Perel', and R. I. Shekhmamet'ev - 13, 229 [13, 320]
Investigation of Local Changes of the Electric Properties of Silicon Under the Influence of Individual Dislocations. S. Kh. Mil'shtein and V. I. Nikitenko - 13, 233 [13, 329]
Observation of Excited States and Experimental Determination of the Binding Energy of an Indirect Exciton in Germanium. E. F. Gross, V. I. Safarov, A. N. Titkov, and I. S. Shlimak - 13, 235 [13, 332]

Ionization Instability and Motion of Glowing Spots in Na_2ZnGeO_4:Mn Crystals. M. V. Fok and E. Yu. L'vova - 13, 245 [13, 346]

Propagation of Magnetoplasma Waves in Bi Alloyed with Te. V. G. Veselago, M. V. Glushkov, and L. V. Lyn'ko - 13, 247 [13, 349]

Possibility of Controlling the Parameters of Phononless Lines with the Aid of Ultrasound. B. G. Vekhter, V. A. Kovarskii, Yu. B. Rozenfel'd, and B. S. Tsukerblat - 13, 260 [13, 365]

Linear Effect of Magnetoresistance of Many-valley Semiconductors in Heating Electric Fields. M. Asche, Yu. G. Zav'yalov, and O. G. Sarbei - 13 285 [13 401]

Spin Relaxation of Electrons Oriented by Light in a GaAs Crystal. V. G. Fleisher, R. I. Dzhioev, B. P. Zakharchenya, and L. M. Kanskaya - 13, 299 [13, 422]

New Data on the Structure of Optical Absorption in the Region of Isotopic-impurity Exciton States of Naphthalene Crystals. V. L. Broude and A. V. Leiderman - 13, 302 [13, 426]

Possible Instability, Due to Triple Recombination, of the States of a Semiconductor Illuminated by Intense Light. N. N. Dagtyarenko and V. F. Elesin - 13, 326 [13, 456]

Indirect Transitions in Germanium in Crossed Electric and Magnetic Fields. V. I. Zemskii, G. O. Andrianov, and I. V. Mochan - 13, 344 [13, 483]

Magnetooptical Properties of the Bielectron in the BiI_3 Crystal. E. F. Gross, I. N. Ural'tsev, and R. I. Shekhmamet'ev - 13, 357 [13, 503]

Coherent Microwave Radiation of n-InSb. V. N. Kobyzev and A. S. Tager - 13, 433 [13, 607]

Anomalies of Thermal Emf in Phonon-phonon Dragging. V. A. Kozlov and E. L. Nagaev - 13, 455 [13, 639]

Vacancy-donor Complexes in Germanium. V. V. Emtsev and T. V. Mashovets - 13, 478 [13, 675]

Observation of the High-temperature Quantum Size Effect in Semiconducting CuS Film. F. Yu. Aliev, F. R. Godzhaev, I. G. Kerimov, and E. S. Krupnikov - 13, 480 [13, 679]

Singlet and Triplet Exciton-impurity States in Semiconductors. I. S. Gorban', V. A. Gubanov, and A. P. Krokhmal' - 13, 482 [13, 682]

Influence of Spin Relaxation of "Hot" Electrons in the Effectiveness of Optical Orientation in Semiconductors. A. I. Ekimov and V. I. Safarov - 13, 495 [13, 700]

Possibility of Multiply-valued Equilibrium Distribution of the Carriers in Many-valley Semiconductors. V. A. Kochelap, V. I. Pipa, V. N. Piskovoi, and V. N. Sokolov - 13, 503 [13, 710]

Photoconductivity of Germanium in a High-frequency Electric Field. V. A. Romanov, I. P. Zhad'ko, B. K. Serdega, and L. V. Svyatogor - 14, 5 [14, 9]

Pulsed Narrowing of p-n Junctions in Two-photon Excitation. V. A. Kovarskii, N. A. Ferdman, A. V. Simashkevich, and P. A. Gashin - 14, 55 [14, 85]

Transitions of Electrons Between Excited States of Donors in Germanium. E. M. Gershenzon and G. N. Gol'tsman - 14, 63 [14, 98]

Optical Orientation of Free and Bound Excitons in Hexagonal Crystals. E. F. Gross, A. I. Ekimov, B. S. Razbirin, and V. I. Safarov - 14, 70 [14, 108]

Current Instability and Microwave Radiation of n-CdHgTe. V. N. Kobyzev and A. S. Tager 14, 107 [14, 164]

Observation of Small Polarons in β-FeSi with the Aid of the Mossbauer Effect. I. A. Dubovtsev and F. A. Sidorenko - 14, 134 [14, 205]

Biexciton in Cu_2O Crystal. O. I. L'vov and P. P. Pavinskii - 14, 167 [14, 253]

Domain Structure of Multivalley Semiconductor in the Multiply-vallued Sasaki Effect. Z. S. Gribnikov and V. V. Mitin - 14, 182 [14, 272]

Binding Energy of a Carrier with a Neutral Impurity Atom in Germanium and in Silicon. E. M. Gershenzon, G. N. Gol'tsman, and A. P. Mel'nikov - 14, 185 [14, 281]

Scattering by Quasistationary State in Tellurium. A. G. Aronov, V. G. Krigel', and I. I. Farbshtein - 14, 203 [14, 307]

Quantum Size-effect Semimetal-semiconductor Transition in Ultrathin Bismuth Films. V. N. Molin, V. I. Petrosyan, P. A. Skripkina, B. A. Tavger, E. I. Dagman, and M. D. Blokh - 14, 215 [14, 323]

Asymptotic Behavior of the Electric Conductivity in Disordered Structures. I. Z. Kostadinov - 14, 231 [14, 345]

Activation Energy of Jump Conductivity. B. I. Shklovskii, A. L. Efros, and I. Ya. Yanchev - 14, 233 [14, 348]

Role of Impurities of Groups III and V in the Formation of Defects Following γ Irradiation of Germanium. E. M. Gershenzon, G. N. Gol'tsman, V. V. Emtsev, T. V. Mashovets, N. G. Ptitsyna, and S. M. Ryvkin - 14, 241 [14, 360]

Capture of Holes by Neutral Boron Atoms in Silicon. E. E. Godik, Yu. A. Kuritsyn, and V. P. Sinis - 14, 254 [14, 377]

Concerning the New Mechanism of Carrier Recombination in Semiconductors. E. M. Gershenzon, Yu. P. Ladyzhinskii, and A. P. Mel'nikov - 14, 256 [14, 380]

Forbidden Optical and Electrical Bands of an Amorphous Semiconductor. B. I. Shklovskii - 14, 269 [14, 397]

Transverse Acoustoelectric Effect in a Layered $LiNbO_3$-Si Structure. A. M. Kmita and A. V. Medved' - 14, 310 [14, 455]
Absorption and Amplification of Ultrasound in a Two-layer System Consisting of a Piezoelectric Ceramic with Large Dielectric Constant and a Semiconductor. N. K. Zhabitenko, I. Ya. Kucherov, E. G. Miselyuk, S. I. Pekar, and N. S. Chernaya - 14, 312 [14, 458]
Dielectric-metal Transition in the System of Excitons in Germanium. V. M. Asnin and A. A. Rogachev - 14, 338 [14, 494]
Optical Orientation of Electron Spins and Band Splitting in Doped Semiconductors. R. I. Dzhioev, B. P. Zakharchenya, and V. G. Fleisher - 14, 381 [14, 553]
Observation of Motion of Slow Recombination Waves (RW) in Silicon Doped with Zinc. Yu. I. Zavadskii and B. V. Kornilov - 14, 407 [14, 585]

SOUND WAVES

Transverse Sound in Liquids. A. A. Berdyev and I. B. Lezhnev - 13, 32 [13, 49]
Propagation of Transverse Hypersonic Waves in Low-viscosity Liquids. K. N. Baranskii, G. A. Sever, and T. S. Velichkina - 13, 34 [13, 52]
Nonlinear Effects in the Propagation of Hypersonic Waves in Indium Antimonide. S. N. Ivanov, I. M. Kotelyanskii, G. D. Mansfel'd, and E. N. Khazanov - 13, 201 [13, 283]
Anomalous Absorption of Sound Near the Ferroelectric Phase Transition. V. I. Samulionis and V. F. Kunigelis - 13, 207 [13, 291]
Possibility of Controlling the Parameters of Phononless Lines with the Aid of Ultrasound. B. G. Vekhter, V. A. Kovarskii, Yu. B. Rozenfel'd, and B. S. Tsukerblat - 13, 260 [13, 365]
Self-focusing of Powerful Sound During the Production of Bubbles. G. A. Askar'yan - 13, 283 [13, 395]
Acoustic Nuclear Effect-solide in Lithium Fluoride. G. L. Antokol'skii, L. N. Fershtat, and V. A. Shutilov - 13, 286 [13, 404]
Damping of High-frequency Sound in a Fermi-Bose Liquid. D. M. Semiz - 13, 328 [13, 459]
Excitation of Sound When a Surface Layer of a Liquid Absorbs a Laser Pulse. F. V. Bunkin, N. V. Karlov, V. M. Komissarov, and G. P. Kuz'min - 13 341 [13, 479]
Influence of Ultrasonic Excitations in Crystals on the Probability of the Mossbauer Effect. G. M. Aivazyan, Yu. M. Aivazyan, V. I. Gol'danskii, R. N. Kocharyan, E. F. Makarov, and A. R. Mkrtchyan - 13, 388 [13, 543]
Excitation of Ultrasonic Waves by Passage of Fast Electrons Through a Metal. I. A. Borshkovskii, V. D. Volovik, I. A. Grishaev, G. P. Dubovik, I. I. Zalyubovskii, and V. V. Petrenko - 13, 390 [13, 546]
Features of Scattering of Light by Hypersonic Waves in Uniaxial Crystals. V. V. Lemanov and O. V. Shakin - 13, 392 [13, 549]
Electromagnetic Generation of Sound in Bi. G. I. Babkin, V. T. Dolgopolov, and V. Ya. Kravchenko - 13, 402 [13, 563]
Possibility of Experimentally Measuring the Electromagnetic Fields Produced in a Metal in Which Transverse Ultrasonic Waves Propagate. M. Leontovich and V. Khait - 13, 414 [13, 579]
Magnetic Breakdown Giant Oscillations of Absorption of Sound by Metals. A. A. Slutskin and S. A. Sokolov - 14, 40 [14, 60]
New Effects in the Absorption of Ultrasound in the Intermediate State of a Very Pure Superconductor. A. G. Shepelev, O. P. Ledenev, and G. D. Filimonov - 14, 290 [14, 428]
Transverse Acoustoelectric Effect in a Layered $LiNbO_3$-Si Structure. A. M. Kmita and A. V. Medved' - 14, 310 [14, 455]
Absorption and Amplification of Ultrasound in a Two-layer System Consisting of a Piezoelectric Ceramic with Large Dielectric Constant and a Semiconductor. N. K. Zhabitenko, I. Ya, Kucherov, E. G. Miselyuk, S. I. Pekar, and N. S. Chernaya - 14, 312 [14, 458]
Anomalous Absorption of Elastic Waves in Phase Transition in Gadolinium Molybdate. S. I. Chizhikov, N. G. Sorokin, B. I. Ostrovskii, and V. A. Meleshina - 14, 336 [14, 490]

SUPERCONDUCTIVITY

Influence of Superconducting Transition on the Internal Friction of Tantalum. V. S. Postnikov, I. V. Zolotukhin, and V. E. Miloshenko - 13, 6 [13, 10]
Superconductivity of Te at High Pressures. M. A. Il'ina and E. S. Itskevich - 13, 15 [13, 23]
Resonance in Superconductors. M. Ya. Azbel' and R. G. Mints - 13, 60 [13, 89]
Superconductivity Induced by Pressure. G. M. Gandel'man and M. A. Fedorov - 13, 127 [13, 180]
Superconductivity of Beryllium Films Evaporated Jointly with Zinc Etioporphyrin. N. E. Alekseevskii, V. I. Tsebro, and E. I. Filippovich - 13, 174 [13, 247]
Resistive Phenomena in the Intermediate State. V. A. Shukhman and L. M. Kano - 13, 197 [13, 277]
Superconductivity of Cold-deposited Films of Alloys of Germanium with Noble Metals. N. E. Alekseevskii, V. M. Zakosarenko, and V. I. Tsebro - 13, 292 [13, 412]
Influence of Nonequilibrium Excitations on

the Properties of Superconducting Films in a High-frequency Field. B. I. Ivlev and G. M. Eliashberg - 13, 333 [13, 464]
Superconductivity of Gallium Arsenide at High Pressures. I. V. Berman, N. B. Brandt, and V. I. Sidorov - 14, 11 [14, 18]
Influence of Magnetic Scattering on the Tunnel Current of Superconductors. N. V. Zavaritskii and V. N. Grigor'ev - 14, 73 [14, 112]
Influence of Reactor Irradiation at Helium Temperature on the Pinning of Abrikosov Fluxoids in Single-crystal Niobium. E. L. Andronikashvili, S. M. Ashimov, and Dzh. S. Tsakadze - 14, 197 [14, 299]
Superconductivity and Structure of Compounds Based on Niobium and Vanadium. B. N. Kodess and V. Sh. Shekhtman - 14, 225 [14, 338]
Critical Temperature of Amorphous Superconducting Films. I. O. Kulik - 14, 228 [14, 341]
New Effects in the Absorption of Ultrasound in the Intermediate State of a Very Pure Superconductor. A. G. Shepelev, O. P. Ledenev, and G. D. Filimonov - 14, 290 [14, 428]
Superconducting Transition Temperature of a Metastable Mixture Based on Nontransition Metals. A. F. Orlov - 14, 339 [14, 496]
Transparency of Thin Superconducting Films. L. P. Gor'kov and M. A. Fedorov - 14, 393 [14, 568]
Manifestation of the Exciton Mechanism in the Case of Granulated Superconductors. V. L. Ginzburg - 14, 396 [14, 572]

THERMAL PROPERTIES OF MATTER AND PHASE TRANSITIONS

Experimental Verification of Similarity Theory at the Critical Point of Ar. A. M. Bykov, A. V. Voronel', V. A. Smirnov, and V. V. Shchekochikhina - 13, 21 [13, 33]
Self-diffusion Phase Transformations. A. L. Roitburd - 13, 66 [13, 95]
Concerning the Melting Point of Graphite up to 90 kbar. N. S. Fateeva and L. F. Vereshchagin - 13, 110 [13, 157]
Critical Point of Phase Transitions of First Order but Close to Second Order - 13, 147 [13, 208]
Anomalous Absorption of Sound Near the Ferroelectric Phase Transition. V. I. Samulionis and V. F. Kunigelis - 13, 207 [13, 291]
Influence of a Strong Electric Field on the Temperature of the Dielectric-metal Phase Transition in $(V_{0.91}Cr_{0.09})_2O_3$. V. N. Andreev, B. A. Tallerchik, and F. A. Chudnovskii - 13 376 [13, 527]
Magnetic Anomalies of the Thermal Expansion of Chromium. V. A. Gordienko and V. V. Nikolaev - 14, 3 [14, 6]
Thermal Conductivity of Bismuth at Low Temperatures. V. N. Kopylov and L. P. Mezhov-Deglin - 14, 21 [14, 32]
Fractionization of Carbon Isotopes in the Synthesis of Diamonds from Gas. D. V. Fedoseev, E. M. Galimov, V. P. Varnin, V. S. Prokhorov, and B. V. Deryagin - 14, 51 [14, 80]
Investigation of Metamagnetic Transition in $FeCl_2$ with the Aid of Polarized Neutrons. V. A. Trunov, A. Z. Yagud, A. I. Egorov, R. P. Dmitriev, and V. A. Ul'yanov - 14, 146 [14, 223]
Melting Curve of Molybdenum up to 90 kbar. N. S. Fateeva and L. F. Vereshchagin - 14, 153 [14, 233]
Thermodynamic Quantities near the Crystallization Points of Liquids. A. V. Voronel' - 14, 174 [14, 263]
Thermodynamics of the Melting of Argon. S. M. Stishov and V. I. Fedosimov - 14, 217 [14, 326]
Anomalous Absorption of Elastic Waves in Phase Transition in Gadolinium Molybdate. S. I. Chizhikov, N. G. Sorokin, B. I. Ostrovskii, and V. A. Meleshina - 14, 336 [14, 490]
Experimental Verification of Scale Law in the Critical Region of Cyclopentane. A. D. Alekhin and N. P. Krupskii - 14, 403 [14, 581]
Theory of Nucleus Formation in Phase Transitions in Magnetic Fields. I. A. Privorotskii - 14, 429 [14, 613]

THIN FILMS, SURFACE PHENOMENA

Current Oscillations in Amorphous Semiconductors. V. I. Zaliva and V. P. Zakharov - 13, 93 [13, 133]
Superconductivity of Beryllium Films Evaporated Jointly with Zinc Etioporphyrin. N. E. Alekseevskii, V. I. Tsebro, and E. I. Filippovich - 13, 174 [13, 247]
Superconductivity of Cold-deposited Films of Alloys of Germanium with Noble Metals. N. E. Alekseevskii, V. M. Zakosarenko, and V. I. Tsebro - 13, 292 [13, 412]
Giant Zero-bias Anomalies and Space Charge Limited Currents in Tunnel Junctions. I. K. Yanson and A. A. Vlasenko - 13, 294 [13, 415]
Influence of Nonequilibrium Excitations on the Properties of Superconducting Films in a High-frequency Field. B. I. Ivlev and G. M. Eliashberg - 13, 333 [13, 464]
Formation of Clusters in Ion Bombardment of Films of Frozen Polar Substances. G. D. Tantsyrev and E. N. Nikolaev - 13, 337 [13, 473]
Observation of the High-temperature Quantum Size Effect in Semiconducting CuS Film. F. Yu. Aliev, F. R. Godzhaev, I. G. Kerimov, and E. S. Krupnikov - 13, 480 [13, 679]
Population Inversion of the Levels of the Nuclear Magnetic System of Thin-film Co^{59} Following Pulsed Magnetization Reversal.

N. M. Salanskii, I. A. Lyapunov, and V. K. Mal'tsev - 13, 491 [13, 694]
Oscillations of the Conductivity of Tunnel Contacts Containing Uracil in the Barrier Layer. I. K. Yanson, B. I. Verkin, L. I. Ostrovskii, A. B. Teplitskii, and O. I. Shklyarevskii - 14, 26 [14, 40]
Magnetoresistance of Polycrystals and Its Size Effect. Yu. A. Dreizin and A. M. Dykhne - 14, 66 [14, 101]
Influence of Magnetic Scattering on the Tunnel Current of Superconductors. N. V. Zavaritskii and V. N. Grigor'ev - 14, 73 [14, 112]
Observation of Bound Electron-nuclear Oscillations in Ferromagnetic Films. A. N. Pogorelyi and V. V. Kotov - 14, 202 [14, 305]
Quantum Size-effect Semimetal-semiconductor Transition in Ultrathin Bismuth Films. V. N. Molin, V. I. Petrosyan, P. A. Skripkina, B. A. Taveger, E. I. Dagman, and M. D. Blokh - 14, 215 [14, 323]
Critical Temperature of Amorphous Superconducting Films. I. O. Kulik - 14, 228 [14, 341]
Surface Magnetic Susceptibility of Metlas. S. S. Nedorezov - 14, 415 [14, 597]

new from RUSSIA!

Soviet Journal of Quantum Electronics

SOVIET JOURNAL OF QUANTUM ELECTRONICS

The American Institute of Physics has added to its list of 13 major Russian journals that are translated from cover to cover, the journal *KVANTOVAYA ELEKTRONIKA*. New in 1971, this journal is edited by Academician N.G. Basov, who shared the 1964 Nobel Prize in physics for development of the laser with Charles H. Townes and A. Prokhorov.

This bimonthly journal covers experimental and theoretical work on quantum electronics and its applications in science and technology: lasers, interaction of coherent radiation with matter, holography, nonlinear optics, and related topics. The editors say, "We hope to concentrate, to a significant degree, the fundamental publications on quantum electronics in a single publication."

The importance that the Russians attach to this journal is indicated by the fact that they are printing more than twice as many copies as they print of their famous *ZHURNAL EKSPERIMENTAL'NOI I TEORETICHESKOI FIZIKI*, which we publish as *SOVIET PHYSICS–JETP*.

Volume 1 (July 1971 – June 1972) of *SOVIET JOURNAL OF QUANTUM ELECTRONICS* covers the 1971 issues of *KVANTOVAYA ELEKTRONIKA*.

Annual Subscription Prices

U.S. and poss.
Canada and Mexico $50

Europe, Middle East,
North Africa (air freight) $55

Elsewhere $53

To: **Department S**
American Institute of Physics
335 East 45th Street, New York, New York 10017

Please enter my subscription for Volume I (July 1971 – June 1972) of *SOVIET JOURNAL OF QUANTUM ELECTRONICS*.

NAME _____

ADDRESS _____

_____

City State ZIP Code

Check enclosed ☐ Please bill ☐

JETP LETTERS VOLUME 13, NUMBER 1 5 JANUARY 1971

CONTENTS

	Page Engl.	Russ.
Inhomogeneous Magnetization of Nickel Near the Curie Point. . . . . G.M. Drabkin, A.I. Okorokov, V.I. Volkov, and A.F. Shchebetov	1	3
Explosive Emission Electrons from Metallic Needles. . . . . G.A. Mesyats and D.I. Proskurovskii	4	7
Influence of Superconducting Transition on the Internal Friction of Tantalum. . . . . V.S. Postnikov, I.V. Zolotukhin, and V.E. Miloshenko	6	10
Mossbauer Spectra and the Jahn-Teller Pseudoeffect in M_2SbCl_6 . . . . . A.Yu. Aleksandrov, S.P. Ionov, A.M. Pritchard, and V.I. Gol'danskii	8	13
Molecules in an Ultrastrong Magnetic Field. . . . . B.B. Kadomtsev and V.S. Kudryavtsev	9	15
Observation of Asymmetry of the Distribution of Turbulent Electric Fields in a Direct Discharge Plasma by Means of the Polarization in the Stark Profile of the Hα Line . . . . . E.K. Zavoiskii, Yu.G. Kalinin, V.A. Skoryupin, V.V. Shapkin, and G.V. Sholin	12	19
Superconductivity of Te at High Pressures . . . . . M.A. Il'ina and E.S. Itskevich	15	23
Polarization of Li^8 Fragments in Nuclear Reactions Produced by Slow π^- Mesons . . . . . A.T. Varfolomeev	17	27
Slowing Down of Dislocations in Ferromagnets. . . . . G.I. Babkin and V.Ya. Kravchenko	19	30
Experimental Verification of Similarity Theory at the Critical Point of Ar . . . . . A.M. Bykov, A.V. Voronel', V.A. Smirnov, and V.V. Shchekochikhina	21	33
Measurement of the Lifetime and of the Spin-relaxation Time of Electrons in Semiconductors by the Optical-orientation Method . . . D.Z. Garbuzov, A.I. Ekimov, and V.I. Safarov	24	36
Crowdion Mechanism of Plastic Deformation . . . . . Zh.I. Dranova, A.M. D'yachenko, and I.M. Mikhailovskii	27	40
Observation of γ Quanta with Energy Larger than 100 MeV from the Radio Source 3C120. . . . . S.A. Volobuev, A.M. Gal'per, V.G. Kirillov-Ugryumov, B.I. Luchkov, and Yu.V. Ozerov	28	43
Q Switching of a Ruby Laser by Dye Vapors . . . . . V.P. Klochkov, V.L. Bogdanov, and B.S. Neporent	31	47
Transverse Sound in Liquids . . . . . A.A. Berdyev and I.B. Lezhnev	32	49
Propagation of Transverse Hypersonic Waves in Low-viscosity Liquids . K.N. Baranskii, G.A. Sever, and T.S. Velichkina	34	52
Self-focusing and Defocusing of Short Light Pulses in Media with Inertial Nonlinearity . . . . . V.A. Aleshkevich, S.A. Akhmanov, A.P. Sukhorukov, and A.M. Khachatryan	36	55
Luminescence of the Local Center of a Crystal in the Presence of Uniaxial Deformation . . . . . E.S. Medvedev	39	59
Atoms in a Superstrong Magnetic Field . . . . . B.B. Kadomtsev and V.S. Kudryavtsev	42	61
Diffusion Mobility of Negative Ions in Solid Helium . . . . . V.B. Shikin	44	65

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)

CONTENTS

	Page Engl.	Russ.
Isomagnetic Discontinuity in a Collisionless Shock Wave in a Plasma. . . . . V.G. Eselevich, A.G. Es'kov, R.Kh. Kurtmullaev, and A.I. Malyutin	49	73
Singularities of the Lateral Distribution of Radio Emission of Extensive Air Showers . . . . . V.B. Atrashkevich, O.V. Vedeneev, and G.B. Khristiansen	51	76
Magnetic Birefringence in Antiferromagnetic MnF_2. . . . . A.S. Borovik-Romanov, N.M. Kreines, and M.A. Talalaev	54	80
Cyclotron Instability of the Outer Radiation Belt of the Earth Under Conditions of Self-modulation of Growing Waves. . . . . A.V. Gul'el'mi	57	85
Resonance in Superconductors. . . . . M.Ya. Azbel' and R.G. Mints	60	89
Contribution to the Theory of Strong Interactions at High Energies. A.Z. Patashinskii	63	92
Self-diffusion Phase Transformations. . . . . A.L. Roitburd	66	95
Formation of Positronium Upon Collision of Fast Particles and its Decay . . . . . G.V. Meledin, V.G. Serbo, and A.K. Slivkov	68	98
Electronic Thermal Conductivity in a Toroidal Plasma Loop . . . . . L.A. Artsimovich	70	101

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

CONTENTS

	Page Engl.	Russ.
Concerning the Selection Rules in Mandel'shtam-Brillouin Scattering in Crystals . . . O.V. Kachalov	75	109
Excitation of SRS Using a Low-power Laser . . . F.A. Korolev, V.I. Odintsov, and E.Yu. Sokolova	77	112
Influence of Rotation of the Spontaneous-magnetization Vector on the Hall Effect . . . E.P. Svirina	79	115
Electrogyration Effects in Quartz Crystals. . . . O.G. Blokh	81	118
Study of Quasi-two-particle Reactions in Proton-proton Interactions at 10 GeV/c . . . Zh.S. Takibaev, E.G. Boos, L.A. San'ko, and T. Temiraliev	83	122
Induced Radiation of $Y_3Al_3O_{12}$-$(Nd)^{3+}$ Excited by an Electron Beam. . Yu.K. Voron'ko, E. L. Nolle, V.V. Osiko, and M.I. Timoshechkin	86	125
Observation of Induced Antiferromagnetism Above the Neel Point in FeF_3 . . . V.Ya. Gamlitskii, S.S. Yakimov, V.I. Nikolaev, and N.F. Simonov	88	129
Transverse Mode Locking in an Injection Laser . . . S.S. Vyshlov, L.P. Ivanov, A.S. Logginov, and K.Ya. Senatorov	90	131
Current Oscillations in Amorphous Semiconductors. . . . V.I. Zaliva and V.P. Zakharov	93	133
Self-trapping of Powerful Electromagnetic Waves in a Dense Plasma . Yu.Ya. Brodskii, B.G. Eremin, A.G. Litvak, and Yu.A. Sakhonchik	95	136
Electro-optical Kerr Effect on Hot Electrons in n-InSb. . . . L.E. Vorob'ev, V.G. Komissarov, V.I. Stafeev, and A.Yu. Ushakov	98	140
Relaxation Phenomena in Ferrites of the System $NiFe_{2-x}Cr_xO_4$ . . . . V.I. Nikolaev, F.I. Popov, and S.S. Yakimov	100	143
Formation of an Exciton Dielectric Phase in a Magnetic Field in a Metal-semiconductor Transition. . . . N.B. Brandt and S.M. Chudinov	102	146
Electromagnetic Waves Near Hole Cyclotron Resonance in Bismuth. . . V.P. Naberezhnykh, D.E. Zherebchevskii, and V.L. Mel'chik	105	150
Activation Conductivity of Almost Fully Compensated n-Germanium . . I.S. Shlimak and V.V. Emtsev	107	153
Concerning the Melting Point of Graphite up to 90 kbar. . . . . N.S. Fateeva and L.F. Vereshchagin	110	157
Interaction of an Ultrashort Neodymium-laser Pulse with GaAs. . . . T.L. Gvardzhaladze, A.Z. Grasyuk, I.G. Zabarev, P.G. Kruykov, and O.B. Shashberashvili	111	159
Limiting Plasma Pressure in a Tokomak . . . A.A. Galeev and R.Z. Sagdeev	113	162
Concerning One More Method of Magnetic Energy Pumping into a Turbulent Plasma . . . A.I. Akhiezer, V.F. Alaksin, and V.D. Khodusov	114	164
Self-focusing of a Vector Field . . . V.N. Eleonskii and V.P. Silin	117	167
Concerning the Nature of the Nonlinearity of the NaCl Crystal . . . M.S. Brodin and A.M. Kamuz	119	170
Splitting of a Photon in a Magnetic Field and Polarization of Hard Radiation from Pulsars. . . . D.V. Gal'tsov and V.V. Skobelev	122	173
Allowance for the Coulomb Interaction in the Scattering of a Fast Charged Particle by a Nucleus . . . L.A. Londratyuk and V.B. Kopeliovich	123	176
Superconductivity Induced by Pressure . . . G.M. Gandel'man and M.A. Fedorov	127	180
Possibility of Shortening Light Pulses in Alkali-metal Vapor. . . . B.Ya. Zel'dovich and I.I. Sobel'man	129	182

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

JETP LETTERS VOLUME 13, NUMBER 4 20 FEBRUARY 1971

CONTENTS

	Page Engl.	Russ.
Effective Generation of Powerful Coherent Ultraviolet Radiation . . L.V. Norinskii and V.A. Kolosov	133	189
Hyperfine Magnetic Field for Sn^{119} Impurity Atoms in Ferromagnetic Terbium . . . . . A.S. Kuchma, V.I. Parfenova, and V.S. Shpinel'	135	192
Effect of Optical Orientation of Electron Spins in a GaAs Crystal B.I. Zakharchenya, V.G. Fleisher, R.I. Dzhioev, Yu.P. Veshchunov, and I.B. Rusanov	137	195
Thermal Explosion Induced in a Collisionless Plasma by a Relativistic Electron Beam. . . . . A.T. Altyntsev, A.G. Es'kov, O.A. Zolotovskii, V.I. Koroteev, R.Kh. Kurtmullaev, V.D. Masalov, and V.N. Semenov	139	197
Dynamic Radiation Generated in Crystals by Particles with Ultrarelativistic Energies . . . . . A.I. Alikhanyan, G.M. Garibyan, M.P. Lorikyan, and K.K. Shikhlarov	142	201
Feasibility of Optical Orientation of Equilibrium Electrons in Semiconductors. . . . . M.I. D'yakonov and V.I. Perel'	144	206
Critical Point of Phase Transitions of First Order but Close to Second Order. . . . . A.M. Korotkikh and V.M. Nabutovskii	147	208
Hall Effect in Semiconductors in a Strong Electric Field. . . . . V.I. Pustovoit and Yu.P. Mukhrotov	149	211
Feasibility of an Adsorption-gasdynamic Laser . . . . . V.K. Konyukhov and A.M. Prokhorov	153	216
Electrostatic Energy of a Disordered Alloy. . . . . G.L. Krasko	155	218
Planar Model of a Branched Domain Structure of a Cubic Ferromagnet. . . . . I.A. Privorotskii	158	222

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofiziko Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

CONTENTS

	Page Engl.	Russ.
Spin Mandel'shtam-Brillouin Effect. . . . . V.I. Zubkov, Ya.A. Monosov, and V.I. Shcheglov	161	229
Experimental Investigation of the Differential Cross Section of Elastic Scattering of Excited Atoms by Electrons of a Gas-discharge Plasma. . . . . S.N. Atutov, A.G. Nikitenko, S.G. Rautian, and E.F. Saprykin	163	232
Anomalous Dissipation of Microwave Energy in a Collisionless Plasma K.F. Sergeichev and V.E. Trofimov	166	236
Investigation of the Cataphoresis Effect in a Cadmium-vapor Laser . L.D. Mash, B.M. Rabkin, and B.V. Rybakov	169	240
Correlation Between the Transverse and Longitudinal Momenta in Multiple Generation . . . . . N.N. Roinishvili and E.N. Sherrer	171	243
Superconductivity of Beryllium Films Evaporated Jointly with Zinc Etioporphyrin . . . . . N.E. Alekseevskii, V.I. Tsebro, and E.I. Filippovich	174	247
Observation of Optical Orientation of Equilibrium Electrons in n-Type Semiconductors . . . . . A.I. Ekimov and V.I. Safarov	177	251
Coherent Radiation of Charged Particles Channelled in a Crystal . . V.A. Belyakov	179	254
Possibility of Obtaining a Powerful Neutron Source by Action of a Laser Pulse on a Compound Target. . . . . Yu.V. Afanas'ev, E.M. Belenov, O.N. Krokhin, and I.A. Poleuktov	182	257
Production of e^+e^- Pairs in an Alternating External Field . . . . . V.S. Popov	195	261
Cold Electrons in Semiconductors. . . . . S.I. Shevchenko	187	264
Possibility of Generating Infrared Radiation by Polarization Reversal of a Ferroelectric . . . . . Yu.I. Balkarei and E.V. Chenskii	190	266
Role of Exciton-phonon Complexes in the Interband Magnetooptical Anomaly . . . . . V.I. Mel'nikov, E.I. Rashba, and V.M. Edel'shtein	192	269

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

JETP LETTERS VOLUME 13, NUMBER 6 20 MARCH 1971

CONTENTS

	Page Engl.	Russ.
Resistive Phenomena in the Intermediate State. V.A. Shukhman and L.M. Kano	197	277
Heavy Leptons and Neutrino Astronomy. B. Pontecorvo	199	281
Nonlinear Effects in the Propagation of Hypersonic Waves in Indium Antimonide. S.N. Ivanov, I.M. Kotelyanskii, G.D. Mansfel'd, and E.N. Khazanov	201	283
Possibility of Producing Inverted Population in Atomic Beams by Charge Exchange of Protons with Atoms. L.P. Presnyakov and V.P. Shevel'ko	203	286
Pion Photoproduction of Nucleon Near Threshold and the Contribution for Vector-meson Exchange. G.M. Radutskii and V.A. Serdyutskii	205	288
Anomalous Absorption of Sound Near the Ferroelectric Phase Transition. V.I. Samulionis and V.F. Kunigelis	207	291
Electroproduction in Colliding-beam Experiments. V.N. Baier and V.S. Fadin	208	293
Light Scattering by Drops of the Condensed Phase of Nonequilibrium Carriers in Germanium. Ya.E. Pokrovskii and K.I. Svistunova	212	297
Suppression of (n,γ) Reaction in Resonant Scattering of Neutrons by a Perfect CdS Crystal. S.Sh. Shil'shtein, V.A. Somenkov, and V.P. Dokashenko	214	301
Two-step Selective Photoionization of Rubidium Atoms by Laser Radiation. R.V. Ambartsumyan, V.N. Kalinin, and V.S. Letokhov	217	305
Surface Conductivity in Tin in a Strong Magnetic Field. Yu.P. Gaidukov and A.P. Perov	219	307
Certain Dispersion Effects in Molecular Gases in Parallel Constant and Alternating Magnetic Fields. V.D. Borman, B.I. Nikolaev, and V.I. Troyan	221	311
Verification of Models of the Asymptotic Behavior of $\pi^{\pm}p$ Scattering Amplitudes. O.V. Dumbrais	224	315
Absorption of Light by an Inhomogeneous Laser Plasma. A.V. Vinogradov and V.V. Pustovalov	226	317
Inverse Hydrogenlike Series in Optical Excitation of Light Charged Particles in a Bismuth Iodide (BiI_3) Crystal. E.F. Gross, V.I. Perel', and R.I. Shekhmamet'ev	229	320

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

CONTENTS

	Page Engl.	Russ.
Investigation of Local Changes of the Electric Properties of Silicon Under the Influence of Individual Dislocations. S.Kh. Mil'shtein and V.I. Nikitenko	233	329
Observation of Excited States and Experimental Determination of the Binding Energy of an Indirect Exciton in Germanium. E.F. Gross, V.I. Safarov, A.N. Titkov, and I.S. Shlimak	235	332
Observation of Vector Synchronism in Generation of the Sound Harmonic of a Neodymium Laser with Single Crystals of Metanitroaniline B.L. Davydov, M.E. Zhabotinskii, V.F. Zolin, L.G. Koreneva, and M.A. Samikhina	238	336
Penning Ionization in Collision of Fast Unexcited Rb Atoms with Ar Atoms Yu.F. Bydin, V.I. Ogurtsov, and V.S. Sirazetdinov	240	340
Determination of the Radius of Strong Interaction of Pb and the Mean Free Path of the π^0 Meson in Nuclear Matter. V.I. Kryshkin, A.G. Potashov, A.G. Sterligov, and Yu.P. Usov	242	341
Luminescence of Solid Organic Dyes Bombarded by Thermal Hydrogen Atoms V.D. Shatrov, E.B. Gordon, A.N. Ponomarev, and V.L. Tal'roze	243	344
Ionization Instability and Motion of Glowing Spots in Na_2ZnGeO_4:Mn Crystals. M.V. Fok and E.Yu. L'vova	245	346
Propagation of Magnetoplasma Waves in Bi Alloyed with Te. V.G. Veselago, M.V. Glushkov, and L.V. Lyn'ko	247	349
Direct Proof of the Existence of an Excited Negative C^- Ion and the Determination of the Binding Energy of the Electron In It V.A. Oparin, R.N. Il'in, I.T. Serenkov, E.S. Solov'ev, and N.V. Fedorenko	249	351
Measurement of the Angular Correlation Between the Neutron Spin and the Electron Momentum in the Decay of Polarized Neutrons. B.F. Erozolimskii, L.N. Bondarenko, Yu.A. Mostovoi, B.A. Obinyakov, V.I. Fedunin, and A.I. Frank	252	356
WKB Method for a Strong Coulomb Field V.P. Krainov	255	359
Collective Effects in Discretely-electronic Beams L.A. Rivlin	257	362
Possibility of Controlling the Parameters of Phononless Lines with the Aid of Ultrasound B.G. Vekhter, V.A. Kovarskii, Yu.B. Rozenfel'd, and B.S. Tsukerblat	260	365
Mechanism of Excitation and Control of Relaxation Oscillations in a Plasma-beam System. S.M. Krivoruchko, A.S. Bakai, and E.A. Kornilov	262	369
Electromagnetic Form Factor for the Pion in the Dual Resonant Model G.S. Iroshnikov and A.S. Chernov	265	372
"Forbidden" Cross-relaxation Transitions and Their Role in the Dynamics of Stationary ENDOR. V.Ya. Zevin and A.B. Brik	268	376
Instability of Spin Waves in Ferroelectric Antiferromagnets in External Fields I.A. Akhiezer and L.N. Davydov	271	380
Determination of the Mass of the Muonic Neutrino in Radiative Pion Decays. D.Yu. Bardin, G.V. Mitsel'makher, and N.M. Shumeiko	273	383
Dual Amplitude for Processes with Participation of Photons. A.P. Kobushkin	277	387
High-energy Asymptotic Cross Sections for the Production of e^+e^- Pairs in Collisions of Heavy Charged Particles. E.A. Kuraev and V.T. Lazurik-El'tsufin	280	391
Self-focusing of Powerful Sound During the Production of Bubbles. G.A. Askar'yan	283	395

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

CONTENTS

	Page Engl.	Russ.
Linear Effect of Magnetoresistance of Many-valley Semiconductors in Heating Electric Fields. M. Asche, Yu.G. Zav'yalov, and O.G. Sarbei	285	401
Acoustic Nuclear Effect-solide in Lithium Floride. G.L. Antokol'skii, L.N. Fershtat, and V.A. Shutilov	286	404
Investigation of the Temporal Characteristics of Deformation Luminescence. V.V. Korshunov, F.D. Senchukov, and S.Z. Shmurak	289	408
Superconductivity of Cold-deposited Films of Alloys of Germanium with Noble Metals. N.E. Alekseevskii, V.M. Zakosarenko, and V.I. Tsebro	292	412
Giant Zero-bias Anomalies and Space Charge Limited Currents in Tunnel Junctions. I.K. Yanson and A.A. Vlasenko	294	415
Optical Orientation of Kr Atoms in the Metastable $^3P_2$ State. A.B. Gutner, R.A. Zhitnikov, and A.I. Okunevich	298	420
Spin Relaxation of Electrons Oriented by Light in a GaAs Crystal. V.G. Fleisher, R.I. Dzhioev, B.P. Zakharchenya, and L.M. Kanskaya	299	422
New Data on the Structure of Optical Absorption in the Region of Isotopic-impurity Exciton States of Naphthalene Crystals. V.L. Broude and A.V. Leiderman	302	426
Observation of Magnon-phonon Interaction in Antiferromagnetic $MnCO_3$. B.Ya. Kotyuzhanskii and L.A. Prozorova	305	430
Frequency Dependence of the Threshold of Optical Breakdown in Air in the Ultraviolet Band. V.I. Eremin, L.V. Norinskii, and V.A. Pryadein	307	433
Plasticity of Reactor-irradiated LiF Crystals. E.L. Andronikashvili, N.G. Politov, I.M. Paperno, and A.K. Razmadze	310	436
Resonatorless Parametric Light Generator Using an α-HIO_3 Crystal. A.I. Kovrigin and P.V. Nikles	313	440
Holographic Recording of Nonstationary Processes. V.A. Zubov, A.V. Kraiskii, and T.I. Kuznetsova	316	443
Reaction of Production of Two Slow Pions in ee and ep Collisions. M.V. Terent'ev	318	446
Influence of Crystal Lattice on Nuclear Properties of Superdense Matter. V.A. Volodin and D.A. Kirzhnits	320	450
Extension of the Algebra of Poincare Group Generators and Violation of P invariance. Yu.A. Gol'fand and E.P. Likhtman	323	452
Possible Instability, Due to Triple Recombination, of the States of a Semiconductor Illuminated by Intense Light. N.N. Degtyarenko and V.F. Elesin	326	456
Damping of High Frequency Sound in a Fermi-Bose Liquid. D.M. Semiz	328	459
Nonequilibrium Dissociation of a Molecular Gas Under the Influence of Resonant Laser Radiation, with Allowance for Vibration-Vibration Collisions. Yu.V. Afanas'ev, E.M. Belenov, E.P. Markin, and I.A. Poluektov	331	462
Influence of Nonequilibrium Excitations on the Properties of Superconducting Films in a High-frequency Field. B.I. Ivlev and G.M. Eliashberg	333	464

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

JETP LETTERS VOLUME 13, NUMBER 9 5 MAY 1971

CONTENTS

	Page Engl.	Russ.
Formation of Clusters in Ion Bombardment of Films of Frozen Polar Substances. G.D. Tantsyrev and E.N. Nikolaev	337	473
Landau Quantum Oscillations of the Surface Resistance of MoO_2 E.P. Vol'skii and V.M. Teplinskii	340	477
Excitation of Sound When a Surface Layer of a Liquid Absorbs a Laser Pulse F.V. Bunkin, N.V. Karlov, V.M. Komissarov, and G.P. Kuz'min	341	479
Indirect Transitions in Germanium in Crossed Electric and Magnetic Fields. V.I. Zemskii, G.O. Andrianov, and I.V. Mochan	344	483
Temperature Reorientation of the Spins in Natural Pyrrhotine $Fe_{0.88}S$ N.S. Ovanesyan, V.A. Trukhtanov, G.Yu. Odinets, G.V. Novikov, and L. Cser	347	488
Influence of Twins on the Magnetoresistance of Sb. Yu.A. Bogod, B.I. Verkin, V.B. Krasovitskii, and S.V. Tsivinskii	349	491
CW Chemical Laser Using DF-CO_2. N.G. Basov, V.V. Gromov, E.L. Koshelev, E.P. Markin, A.N. Oraevskii, D.S. Shapovalov, and V.A. Shcheglov	352	496
Experimental Investigation of the Interaction of Modulated Relativistic Beams with a Plasma. A.K. Berezin, Ya.B. Fainberg, L.I. Bolotin, A.M. Egorov, and Kiselev	354	498
Magnetooptical Properties of the Bielectron in the BiI_3 Crystal. E.F. Gross, I.N. Ural'tsev, and R.I. Shekhmamet'ev	357	503
Physical States on Daughter Trajectories in the Dual Amplitude Under the Condition $\alpha(0) = 1$. V.A. Kudryavtsev and E.M. Levin	360	507
Amplification of High-frequency Phonons in the Field of an Electromagnetic Wave. E.M. Epshtein	364	511
Concerning One Possibility of Increasing the Classical Coefficients for Transport Across a Strong Magnetic Field. L. Kovrizhnykh	365	513
Possibility of Producing High Pressure in a Solid by Means of a Strong-current Electron Beam. O.V. Bogdankevich and A.A. Rukhadze	369	517
Electromagnetic Contributions to the Total Cross Section of Hadron Scattering. V.M. Budnev and I.F. Ginzburg	370	519

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

CONTENTS

	Page Engl.	Page Russ.
Interference Effect in the Cross Section for the Charge Exchange of Li^+ Ions with He Atoms. Z.Z. Latypov and A.A. Shaporenko	375	525
Influence of a Strong Electric Field on the Temperature of the Dielectric-Metal Phase Transition in $(V_{0.91}Cr_{0.09})_2O_3$. V.N. Andreev, B.A. Tallerchik, and F.A. Chudnovskii	376	527
Detecting Properties of Metal-InSb Point Contact at a Wavelength of 337 μ and T = 300°K. S.F. Dyubko and M.N. Efimenko	379	531
Fieldless Temperature Resonance in Ruby (T-resonance). A.A. Bugai and V.M. Maksimenko	380	533
Observation of Phonon Cascade by the Method of Mandel'shtam-Brillouin Light Scattering in Pulsed Saturation of Paramagnetic Resonance. S.A. Al'tshuler, R.M. Valishev, B.I. Kochelaev, and A.Kh. Khasanov	382	535
Resonance of Anomalous Microwave Heating of Electrons in a Magnetized Plasma. G.M. Batanov and K.A. Sarksyan	384	539
Influence of Ultrasonic Excitations in Crystals on the Probability of the Mossbauer Effect. G.M. Aivazyan, Yu.M. Aivazyan, V.I. Gol'danskii, R.N. Kocharyan, E.F. Makarov, and A.R. Mkrtchyan	388	543
Excitation of Ultrasonic Waves by Passage of Fast Electrons Through a Metal. I.A. Borshkovskii, V.D. Volovik, I.A. Grishaev, G.P. Dubovik, I.I. Zalyubovskii, and V.V. Petrenko	390	546
Features of Scattering of Light by Hypersonic Waves in Uniaxial Crystals. V.V. Lemanov and O.V. Shakin	392	549
Experiments on the Stabilization of Flute Instability with the Aid of an Integrating Feedback System. V.A. Chuyanov and E.G. Murphy	395	553
The New Isotope ^{92}Ru. R. Arl't, B. Bayar, N.G. Zaitseva, B. Kratsik, A.F. Novgorodov, F. Severa, and Chang Than Min	397	556
Polarization Echo in the Ferroelectric Single Crystal KH_2PO_4. U.Kh. Kopvillem, B.P. Smolyakov, and R.Z. Sharipov	398	558
Temperature Dependence of the Intensity of NMR of Hexagonal Cobalt. A.N. Pogorelyi and V.V. Kotov	400	561
Electromagnetic Generation of Sound in Bi. G.I. Babkin, V.T. Dolgopolov, and V.Ya. Kravchenko	402	563
Upper Limits of Luminosity of Certain Extragalactic Objects in the Hard γ-Ray Region. L.S. Bratolyubova-Tsulukidze, L.F. Kalinkin, A.S. Melioranskii, O.F. Prilutskii, E.A. Pryakhin, I.A. Savenko, and V.Ya. Yufarkin	404	566
Low Temperature Electric Conductivity of Metals with Open Fermi Surfaces. R.N. Gruzhi and A.I. Kopeliovich	406	569
Possible Method of Measuring the Electromagnetic Form Factor of the Neutrino. V.I. Andryushin, S.M. Bilen'kii, and S.S. Gershtein	409	573
Possibility of Two-proton and Two-neutrino Radioactive Decay from Many-particle Isomeric States of Nuclei. V.I. Gol'danskii and L.K. Peker	412	578
Possibility of Experimentally Measuring the Electromagnetic Fields Produced in a Metal in Which Transverse Ultrasonic Waves Propagate. M. Leontovich and V. Khait	414	579

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

CONTENTS

	Page Engl.	Page Russ.
High-frequency Detection of Gravitational Waves. V. B. Braginskii and M. V. Menskii	417	585
Investigation of the Character of the Emission of a Neodymium Glass Laser with a Passive Shutter Having a Finite Relaxation Time. V. I. Malyshev, A. A. Sychev, and V. A. Babenko	419	588
Optical Frequency Standard with a Beam Type Absorbing Cell. Yu. M. Malyshev, V. M. Tatarenkov, and A. N. Titov	422	592
Thresholds of Two-stream Instability of Current in a Straight Discharge. A.I. Karchevskii and Yu. I. Strakhov	424	595
Fine Crystalline and Magnetic Structures of Iron-nickel Invars. V. I. Goman'kov, I. M. Puzei, V. N. Sigaev, E. V. Kozis, and E. I. Mal'tsev	428	600
Observation of Self-focusing of Electromagnetic Waves in a Plasma. B. G. Eremin and A. G. Litvak	430	603
Coherent Microwave Radiation of n-InSb. V. N. Kobyzev and A. S. Tager	433	607
Fine Structure of Rayleigh Line in Sapphire Crystal. V. F. Kitaeva and I. L. Chistyi	435	611
Generation in the Ultraviolet with Frequency Tuning, Using a Paraterphenyl Solution and Excitation with a Flash Lamp. Yu. A. Yanait, G. A. Abakumov, G. I. Kromskii, A. I. Simonov, V. V. Fadeev, and R. V. Khokhlov	438	616
Electric Properties of Linear Conducting Chains of Pt Atoms in $K_2Pt(CN)_4Br_{2.3}\cdot 2.3\ H_2O$. A. S. Berenblyum, L. I.Buravov, M. D. Khidekel', I. F. Shchegolev, and E. B. Yakimov	440	619
Infrared Quenching of the Photoplastic Effect in Cadmium Sulfide. Yu. A. Osip'yan, V. F. Petrenko, and I. B. Savchenko	442	622
Temperature Dependence of the Lifetime of Triplet Positronium in Aliphatic Hydrocarbons and Their Derivatives. A. P. Buchikhin, V. I. Gol'danskii, and V. P. Shantarovich	444	624
Near-threshold Singularities of the Yield of Direct Photonuclear Reactions. B. S. Ratner	447	628
Investigation of Reactions of Excited Iodine Atoms with the Aid of a Photodissociation Laser. T. L. Andreev, S. V. Kuznetsova, A. I. Maslov, I. I. Sobel'man, and V. N. Sorokin	449	631
Repopulation of Highly-excited Vibrational Levels in a Cold Lattice. Ya. B. Zel'dovich and A. A. Ovchinnikov	452	636
Anomalies of Thermal Emf in Phonon-phonon Dragging. V. A. Kozlov and E. L. Nagaev	455	639
Groups of Parallel Penetrating Particles and Their Possible Sources. M. F. Bibilashvili	457	643
Neutron Strength Functions. D. F. Zaretskii and M. G. Urin	460	646
Power-law Increase of Amplitude of Scattering of Large-spin Virtual Particle with Increasing Energy. L. L. Frankfurt	462	650
Production of Muon Pairs with Large Invariant Masses in Hadron Collisions. E. V. Shuryak	465	653
Possibility of Orienting Electron Spins with Current. M. I. D'yakonov and V. I. Perel'	467	657

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$95 domestic, $99 foreign ($100 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($40 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$95 domestic, $99 foreign ($101 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$70 domestic, $74 foreign ($75 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

6 issues per year, approx. 800 Russian pages
$30 domestic, $33 foreign ($34 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$45 domestic, $49 foreign ($50 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$85 domestic, $89 foreign ($90 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$35 domestic, $38 foreign ($39 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 Russian pages
$55 domestic, $58 foreign ($59 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$45 domestic, $48 foreign ($49 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$95 domestic, $99 foreign ($100 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.A.S. members $12.50 domestic, $13.50 foreign
Non-members 25.00 domestic, 26.00 foreign

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $10.00 domestic and foreign
Non-members $55.00 domestic and foreign

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*

CONTENTS

	Page Engl.	Russ.
Possible Existence of $\pi^-\gamma$ Resonance with Mass 270 MeV. . . . . Yu.A. Budagov, V.B. Vinogradov, A.G. Volod'ko, V.P. Dzhelepov, V.S. Kladnitskii, N.M. Kutsidi, Yu.F. Komakin, V.A. Maksimenko, G. Martinska, V.B. Flyagin, Yu.N. Kharzheev, and L. Sandor	471	665
Nucleon Distribution in the Nuclei Cr^{50}, ^{52}, ^{54}, Fe^{54}, ^{56}, and Ni^{58}, ^{60}, ^{62}, ^{64} . . . . . B.A. Shilyaev, N.A. Shlyakhov, V.Ya. Golovnya, and A.P. Klyucharev	473	668
Nuclear Magnetic Resonance of Fe^{57} in $FeBO_3$ Single Crystals. . . . V.D. Doroshev, N.M. Kovtun, V.N. Seleznev, and V.M. Siryuk	475	672
Vacancy-donor Complexes in Germanium . . . . . V.V. Emtsev and T.V. Mashovets	478	675
Observation of the High-temperature Quantum Size Effect in Semiconducting CuS Film. . . . . F.Yu. Aliev, F.R. Godzhaev, I.G. Kerimov, and E.S. Krupnikov	480	679
Singlet and Triplet Exciton-impurity States in Semiconductors. . . I.S. Gorban', V.A. Gubanov, and A.P. Krokhmal'	482	682
Direct Observation of Fluctuations of Deuterium Distribution in $(Nb_{0.93}Ti_{0.66})D_{0.33}$. . . . . N.F. Miron, V.I. Shcherbak, L.E. Fykin, V.N. Bykov, V.A. Levdik, and S.P. Solov'ev	485	686
Antiferromagnetic Resonance and Phase Transition in Cobalt Fluoride in a Perpendicular Magnetic Field . . . . . K.N. Kocharyan and E.G. Rudashevskii	487	688
Generation of Neutrons in a Laser CD_2 Plasma Heated by Pulses of Nanosecond Duration. . . . . N.G. Basov, V.A. Boiko, S.M. Zakharov, O.N. Krokhin, and G.V. Sklizkov	489	691
Population Inversion of the Levels of the Nuclear Magnetic System of Thin-film Co^{59} Following Pulsed Magnetization Reversal. . . . N.M. Salanskii, I.A. Lyapunov, and V.K. Mal'tsev	491	694
Compression of Plasma by a Growing Longitudinal Magnetic Field in the Tokamak. . . . . Yu.N. Dnestrovskii, D.P. Kostomarov, and N.L. Pavlova	493	697
Influence of Spin Relaxation of "Hot" Electrons in the Effectiveness of Optical Orientation in Semiconductors. . . . . A.I. Ekimov and V.I. Safarov	495	700
Concerning the Nature of the Cosmological Constant and the Mechanism of Gravitation of Vacuum . . . . . M.M. Gerdov	498	704
Possibility of Determining the Spin and Parity of the X^0 (960) Meson in Electromagnetic Interactions. . . . . A.N. Zaslavskii and V.A. Khoze	500	706
Possibility of Multiply-valued Equilibrium Distribution of the Carriers in Many-valley Semiconductors. . . . . V.A. Kochelap, V.I. Pipa, V.N. Piskovoi, and V.N. Sokolov	503	710
Coherent Bremsstrahlung of Electrons and Positrons of Ultrahigh Energy in Crystals. . . . . A.I. Akhiezer, P.I. Fomin, and N.F. Shul'ga	506	713
Distribution of Energy Losses for Heavy Positive Particles in a Single Crystal . . . . . N.P. Kalashnikov, V.S. Remizovich, and M.I. Ryazanov	508	715
Temperature Stability of the Metallic Modification of Hydrogen . . E.I. Estrin	510	719
Surface Second Sound in Liquid Helium. . . . . A.F. Andreev and D.A. Kompaneets	511	720
Accumulating Nonlinear Optical Effects in a Pump Field with a Broad Frequency Spectrum . . . . . S.A. Akhmanov, Yu.E. D'yakov, and A.S. Chirkin	514	724

TRANSLATION JOURNALS

Published in English by the American Institute of Physics.

Soviet Physics—JETP

A translation, beginning with 1955 issues of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. Leading physics journal of Soviet Union. Outstanding new work is most likely to appear in this journal.

12 issues per year, approx. 3700 Russian pages
$105 domestic, $109 foreign ($110 air freight)

JETP LETTERS

A translation, beginning with 1965 issues of *ZhETF Pis'ma v Redaktsiyu*. Brief reports of new and significant work; rapid publication of original and of translation.

24 issues per year, approx. 1000 Russian pages
$40 domestic, $43 foreign ($45 air freight)

Soviet Physics—SOLID STATE

A translation, beginning with 1959 issues of *Fizika Tverdogo Tela*. Theoretical and experimental investigations in the physics of semiconductors, dielectrics, and on applied physics associated with these problems. Also publishes papers on electronic processes taking place in the interior and on the surface of solids.

12 issues per year, approx. 4000 Russian pages
$105 domestic, $109 foreign ($111 air freight)

Soviet Physics—TECHNICAL PHYSICS

A translation, beginning with 1956 issues of *Zhurnal Tekhnicheskoi Fiziki*. Plasma physics, magnetohydrodynamics, lasers, physical electronics, and microwave physics. Also publishes articles in mathematical physics, accelerator physics, and ion and electron optics.

12 issues per year, approx. 2300 Russian pages
$80 domestic, $84 foreign ($85 air freight)

Soviet Physics—ACOUSTICS

A translation, beginning with 1955 issues of *Akusticheskii Zhurnal*. Devoted principally to physical acoustics but includes electro-, bio-, and psychoacoustics, architectural acoustics, noise and underwater sound. Emphasis on pure research.

4 issues per year, approx. 650 pages
$35 domestic, $38 foreign ($39 air freight)

Soviet Physics—DOKLADY

A translation, beginning with 1956 issues of the physics sections of *Doklady Akademii Nauk SSSR*, the Proceedings of the USSR Academy of Sciences. All-science journal offering four-page reports of recent research.

12 issues per year, approx. 1500 Russian pages
$50 domestic, $54 foreign ($55 air freight)

SOVIET JOURNAL OF NUCLEAR PHYSICS

A translation, beginning with 1965 issues of *Yadernaya Fizika*. Experimental and theoretical research on the physics of the nucleus, application of nuclear methods, cosmic rays and elementary particle physics.

12 issues per year, approx. 2400 Russian pages
$95 domestic, $99 foreign ($100 air freight)

Soviet Physics—CRYSTALLOGRAPHY

A translation, beginning with 1956 issues of *Kristallografiya*. Experimental and theoretical papers on crystal structure, x-ray, electron and neutron diffraction, lattice dynamics, symmetry and other topics.

6 issues per year, approx. 1000 Russian pages
$45 domestic, $48 foreign ($49 air freight)

SOVIET ASTRONOMY—AJ

A translation, beginning with 1957 issues of the principal Soviet journal of astronomy, *Astronomicheskii Zhurnal*. Astronomy, astrophysics, astrometry; solar activity, stellar spectroscopy, radio astronomy and cosmology.

6 issues per year, approx. 1500 pages
$65 domestic, $68 foreign ($69 air freight)

Soviet Physics—USPEKHI

A translation, beginning with September, 1958 issue of *Uspekhi Fizicheskikh Nauk*. Review papers comparable to those in the *Reviews of Modern Physics*. Also reports on scientific meetings in the Soviet Union, and personalia.

6 issues per year, approx. 1400 Russian pages
$50 domestic, $53 foreign ($54 air freight)

Soviet Physics—SEMICONDUCTORS

A translation, beginning with the 1967 issues of *Fizika i Tekhnika Poluprovodnikov*. Experimental and theoretical work on semiconductors including transfer, surface and resonance phenomena, optics, nonequilibrium processes, plasma problems, radiation effects, p-n junctions, etc.

12 issues per year, approx. 3000 Russian pages
$105 domestic, $109 foreign ($110 air freight)

SOVIET JOURNAL OF OPTICAL TECHNOLOGY

An Optical Society of America translation journal, beginning with 1966 issues of *Optiko-Mekhanicheskaya Promyshlennost*. Experimental and theoretical papers and review articles on optical science and technology; instrumentation, measurement and control.

6 issues per year, approx. 800 Russian pages
O.S.A. members $15 domestic, $16 foreign ($20 air freight)
Non-members $65 domestic, $66 foreign ($70 air freight)

OPTICS AND SPECTROSCOPY

An Optical Society of America translation journal, beginning with 1959 issues of *Optika i Spektroskopiya*.

12 issues per year, approx. 2000 Russian pages
O.S.A. members $15 domestic, $16 foreign ($20 air freight)
Non-members $40 domestic, $41 foreign ($45 air freight)

Subscriptions are also handled by the American Institute of Physics for HIGH TEMPERATURE, *a translation begining with 1963 issues of Teplofizika Vysokikh Temperatur. 6 issues per year, approx. 1000 Russian pages. $95 domestic, $100 foreign ($101 air freight)*